#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization International Bureau



# | 12016 | 12010 | 12010 | 12010 | 12010 | 12010 | 12010 | 12010 | 12010 | 12010 | 12010 | 12010 | 12010 | 1201

# (43) International Publication Date 28 March 2002 (28.03.2002)

## **PCT**

# (10) International Publication Number WO 02/24722 A2

(51) International Patent Classification7:

(21) International Application Number:

\_\_\_\_

C07K

PCT/IL01/00871

(22) International Filing Date:

16 September 2001 (16.09.2001)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/233,665

19 September 2000 (19.09.2000) US

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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

A2

(54) Title: CRYSTALLINE FGF9 DIMER AND METHODS OF USE

(57) Abstract: The crystal structure of FGF9 has been determined and is shown to exist in a tetragonal space group  $14_1$  with lattice constants a = 151.9 Å and c = 117.2 Å. The crystal may be refined to an R value of R = 22.0 % at 2.6Å resolution. The crystal may be used in drug screening assays. A three-dimensional model of FGF9 is also disclosed, as is a three-dimensional computer image of the three-dimensional structure of FGF9, computer-readable data storage medium encoded with computer-readable data corresponding to the three-dimensional computer image, as well as computers for producing such a three-dimensional representation.

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#### CRYSTALLINE FGF9 DIMER AND METHODS OF USE

#### FIELD OF THE INVENTION

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The present invention relates to certain crystallized fibroblast growth factor 9 (FGF9) dimers. This invention also relates to computational methods for using structure coordinates of the protein complex to screen for and design compounds that interact with FGF9 or homologs thereof and methods of using the crystal structure of FGF9 to design pharmaceuticals.

### **BACKGROUND OF THE INVENTION**

Fibroblast growth factors (FGFs) constitute a family of at least twenty structurally related, heparin binding polypeptides which are expressed in a wide variety of cells and tissues. They stimulate the proliferation of cells from mesenchymal to epithelial and neuroectodermal origin. FGFs share structural similarity, but differ in their target specificity and spatial and temporal expression pattern. The biological response of cells to FGF is mediated through specific, high affinity (Kd 20-500 pM) cell surface receptors that possess intrinsic tyrosine kinase activity and are phosphorylated upon binding of FGF (Coughlin et al 1988). A lower affinity (Kd 2 × 10<sup>9</sup> M), large capacity (10<sup>6</sup> sites/cell), class of binding sites has also been identified as heparin sulfate moieties of proteoglycans. Heparin sulfates are ubiquitous polysaccharides, composed of repeating disaccharides of variably sulfated, either glucoronate or iduronate and glucosamine residues, arranged in distinct domains which greatly vary in length and sulfation levels. A unique role for these molecules is in the formation of distinct complexes, essential for high affinity binding and

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WO 02/24722 PCT/IL01/00871

activation of FGF in particular and of other heparin-binding growth factors in general (Yayon et al, 1991; Rapraeger et al 1991).

Ligand and receptor dimerization is a key event in the transmembrane signaling of receptor tyrosine kinases. Receptor dimerization leads to an increase in kinase activity, resulting in autophosphorylation and the induction of diverse biological responses (Schlessinger et al, 1992). Several models have been proposed for the interaction between FGF2-heparin and its receptor (Yayon et al, 1991; Ruoslahti 1991; Spivak-Kroizman et al; 1994, Kan et al; 1993, Guimond 1993; Pantoliano et al, 1994). Previous work utilizing NMR demonstrated that FGF dimers in a symmetric tetramer are formed in the presence of an active heparin decasaccharide (Moy et al, 1997), suggesting that a cis-oriented dimer is the minimal, biologically active structural unit of FGF2. Using defined heparin fragments and soluble FGF receptors further demonstrated that ligand dimerization can significantly enhance binding of FGF2 to FGFR1, dimerization of the receptor and induction of downstream signal transduction pathways. More recently, several studies (Plotnikov et al, 1999; Stauber et al, 2000; Plotnikov et al, 2000) exploring the crystal structure of a complex between FGF2 and FGF1 with the extracellular domains of FGFR1 and FGFR2 have shown a 1:2 molecular ratio of ligands to receptors with no evidence for ligand dimerization, the biological relevance of which has still to be determined.

FGFs share in their primary sequence a homology core of around 120 amino acids, including four cysteine residues, one of which is conserved in all members of the family. The core structure contains 12 antiparallel β strands, organized into a threefold internal symmetry. Equivalent folds have been observed for

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WO 02/24722 PCT/IL01/00871

the soybean trypsin inhibitor and interleukin IL-1a and b. The best characterized members of the family are FGF1 (aFGF) and FGF2 (bFGF), the structures of which have been determined (Zhang et al, 1991; Zhu et al, 1991). Both are potent mitogens that stimulate proliferation, migration and differentiation of a large variety of cells (Folkman et al, 1987; Rifkin et al, 1989).

FGF9, a recently identified member of the FGF family was originally discovered as a heparin binding glia activating factor (Miyamoto et al, 1993; U.S. patents 5,622,928 and 5,512,460). Human FGF9 codes for a 208 amino acid protein. It shares a 30% overall sequence identity with other FGFs but has a unique spectrum of target cell specificity as it stimulates the proliferation of glia and other fibroblast-like cells but is not mitogenic for endothelial cells (Naruo et al, 1993). The basis for such cell selectivity resides in its differential capacity to bind the different FGF receptors. Recombinant FGF9 binds with high affinity and in a heparin dependent manner to FGFR3, with somewhat less affinity to FGFR2 and with considerably less to FGFR1 (Hecht et al, 1995).

Mutations in FGFR3 have been shown to be responsible for achondroplasia, the most common form of genetic dwarfism. Examination of the sequence of FGFR3 in achondroplasia patients identified a mutation in the transmembrane domain of the receptor.

As reported in WO 96/41523, the entire contents of which are hereby incorporated herein by reference, FGF9 not only specifically binds to the FGFR3, but also specifically activates this receptor without activating the FGFR1 and FGFR4 receptors and, if appropriate concentrations are chosen, without significantly activating

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WO 02/24722 PCT/IL01/00871

FGFR2. Thus, a pharmaceutical composition comprising a pharmaceutically acceptable carrier and, as an active ingredient, a therapeutically effective amount of FGF9, may be used for stimulating the activity of FGFR3. Similarly, if antagonists of FGF9 could be found, pharmaceutical compositions containing such antagonists could be used to attenuate the activity of FGFR3.

Normal cartilage and bone growth and repair of damage to the cartilage and bone requires a specific and delicate balance between up regulation and down regulation of the activity of the FGFR3. It has been theorized that active FGFR3 is necessary in the initial stages of cartilage-bone differentiation, and, after differentiation, is required for cartilage-bone repair. Thus, a pharmaceutical composition comprising as an active ingredient FGF9, which stimulates the activity of FGFR3, may be used in order to encourage cartilage and bone repair, for example by administration to the site of injury. Furthermore, FGFR3 exists usually temporarily on mesenchymal stem cells and usually disappears after differentiation. Administration of FGF9 may serve to stabilize FGFR3 and thus prolong the period in which it is active prior to differentiation. FGF9 has also a chemotactic affect of FGFR3-carrying cells and can promote migration of such FGFR3 carrying cells, typically mesenchymal stem cells, to a desired site, for example, by injection of FGF9 to the growth plate top of the column.

According to this theory, overactivation of FGFR3 after the stage of initial differentiation of bone and cartilage cells, leads to halted growth, and is probably the cause of achondroplasia. Thus, a pharmaceutical composition comprising as an active ingredient an antagonist of FGF9 which attenuates the activity

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WO 02/24722 PCT/IL01/00871

of FGFR3, or comprising an FGF9 binding agent (such as an antibody against FGF9), which neutralizes native circulating FGF9, should be used in cases of overactivity of the FGFR3 receptor in differentiated tissues, which causes bone and cartilage growth arrest. Such bone and cartilage growth arrest may lead to achondroplasia dwarfism, or other abnormalities of bone and cartilage growth, for example, multiple hereditary exostosis, solitary hereditary exostosis, hallux valgus deformity, synovial chondromatosis and endochondromas.

The above conditions may be treated with a pharmaceutical composition comprising either an antagonist of FGF9, or an FGF9 binding agent capable of neutralizing native circulating FGF9, which both serve to attenuate the activity of FGFR3.

Thus, FGF9 agonists can be used for the purpose of repair and regeneration of defective articular cartilage, for treatment of achondroplastic patients, for treatment of patients suffering from other growth disturbances and for treatment of physical injuries with poor predicted rate of cartilage and bone growth. They may also be used as interventions for manipulating the rate of growth within growth plates in order to increase the growth rate and/or prevent premature differentiation; or may be used for direct injection into the nucleus pulposus of the fine vertebrae in order to enhance the healing of spine injuries. FGF9 antagonists can be used to suppress the activity of a wild type FGFR3 receptor, for example, in the cases of various types of tumors and the like. See WO 96/41620.

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WO 02/24722 PCT/IL01/00871

As there is a need for compounds that selectively inhibit FGFR3 or act as a selective agonist for FGFR3, it would be desirable to have improved methods that facilitate the design of such compounds.

The concept of rational drug design involves obtaining the precise three-dimensional molecular structure of a specific protein to permit design of drugs that selectively interact with and adjust the function of that protein. Theoretically, if the structure of a protein having a specified function is known, the function of the protein can be adjusted as desired. This permits a number of diseases and symptoms to be controlled. For example, CAPTOPRIL is a well known drug for controlling hypertension that was developed through rational drug design techniques.

CAPTOPRIL inhibits generation of the angiotension-converting enzyme, thereby preventing the constriction of blood vessels. The potential for controlling disease through drugs developed by rational drug design is tremendous. The power of rational drug design has been reviewed by Bugg et al (1993).

A requirement of rational drug design is the production of crystals of the desired target protein which provide for the determination of the detailed atomic structure of both the parent protein and its complex with the pharmaceutical. For this purpose, knowledge of the three-dimensional structure coordinates of FGF9 would be useful. Such information would aid in identifying and designing potential inhibitors and agonists of FGFR3 that in turn are expected to have therapeutic utility.

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WO 02/24722 PCT/IL01/00871

### SUMMARY OF THE INVENTION

The present invention provides crystallized FGF9. The structure coordinates reveal that the crystalline FGF9 shows a symmetric dimer with unique receptor and heparin binding surfaces. FGF9 crystallized in the tetragonal space group I41 with lattice constants a=151.9 Å, c=117.2 Å. The structure has been refined to an R-value of R=22.0% (R<sub>frec</sub>= 25.2%) at 2.6 Å resolution. The four molecules in the asymmetric unit are arranged in two non-crystallographic dimers with the dimer interface composed partly of residues from N- and C-terminal extensions from the FGF-core structure. Most of the receptor-binding residues identified in FGF1- and FGF2-receptor complexes are buried in the dimer interface with the β8/β9 loop stabilized in a particular conformation by an intramolecular hydrogen bonding network. The potential heparin binding sites are in a pattern distinct from FGF1 and FGF2. The carbohydrate moiety attached at N79 has no structural influences.

The use of the crystal structure to design candidate agonists and antagonists of the FGFR3 may be accomplished in the following fashion. Once the crystal structure of the target (i.e., FGF9) is determined, computer modeling is conducted (using such programs as DOCK (Kuntz et al, 1982) or Multiple Copy Simultaneous Search (MCSS)(Mirankev et al, 1991)) to construct candidate agonist or antagonist compounds based on the crystal structure. These compounds are chemically synthesized and their biological activity is assayed. Preferably, such agonists or antagonists are mutants or fragments of FGF9 itself. For example, a preferred antagonist would be a mutant of FGF9 designed by computer modeling

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WO 02/24722 PCT/IL01/00871

based on the crystal structure of FGF9, which mutant bonds to the FGFR3 receptor without activating it.

Furthermore, once the three-dimensional structure of a crystal comprising the FGF9 protein is determined, a potential ligand (antagonist or agonist) is examined through the use of computer modeling using a docking program such as GRAM, DOCK, or AUTODOCK (Dunbrack et al, 1997). This procedure can include computer fitting of potential ligands to the FGF9 dimer to ascertain how well the shape and the chemical structure of the potential ligand will complement or interfere with the dimer-dimer interaction (Bugg et al, 1993; West et al 1995)). Computer programs can also be employed to estimate the attraction, repulsion, and stearic hindrance of the ligand to the dimer-dimer binding site. Generally, the tighter the fit (e.g., the lower the stearic hindrance, and/or the greater the attractive force), the more potent the potential drug will be since these properties are consistent with a tighter binding constant. Furthermore, the more specificity in the design of a potential drug, the more likely that the drug will not interfere with other properties of the FGF9 protein. This will minimize potential side effects due to unwanted interactions with other proteins.

Initially a potential ligand could be obtained by screening a random peptide library produced by recombinant bacteriophage for example, (Scott et al, 1990; Cwirla et al, 1990; Devlin et al, 1990) or a chemical library. A ligand selected in this manner could then be systematically modified by computer modeling programs until one or more promising potential ligands are identified. Such analysis has been shown

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WO 02/24722 PCT/IL01/00871

to be effective in the development of HIV protease inhibitors (Lam et al, 1994; Wlodawer et al, 1993; Appelt, 1993; Erickson, 1993).

Such computer modeling allows the selection of a finite number of rational chemical modifications, as opposed to the countless number of essentially random chemical modifications that could be made, and of which any one might lead to a useful drug. Each chemical modification requires additional chemical steps, which while being reasonable for the synthesis of a finite number of compounds, quickly becomes overwhelming if all possible modifications needed to be synthesized. Thus, through the use of the three-dimensional structure disclosed herein and computer modeling, a large number of these compounds can be rapidly screened on the computer monitor screen, and a few likely candidates can be determined without the laborious synthesis of untold numbers of compounds.

Once a potential ligand (agonist or antagonist) is identified it can be either selected from a library of chemicals as are commercially available from most large chemical companies including Merck, Glaxo Welcome, Bristol Meyers Squib, Monsanto/Searle, Eli Lilly, Novartis and Pharmacia UpJohn, or alternatively the potential ligand may be synthesized *de novo*. As mentioned above, the *de novo* synthesis of one or even a relatively small group of specific compounds is reasonable in the art of drug design. The prospective drug can be physically tested to confirm its projected activity. For example, if the activity sought for such a potential ligand is its ability to prevent the binding of FGF9 to its receptor FGFR3, the potential ligand can be placed into any standard binding assay described below to test its effect on the FGF9-FGFR3 interaction. A preferred ligand for the purpose of this assay would be

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WO 02/24722 PCT/IL01/00871

one which is capable of binding to FGFR3 with a greater affinity than that of FGF9 for FGFR3. If the assay is conducted with FGFR3 on the surface of living cells, then one can determine whether or not the ligand which binds to FGFR3 causes signaling by the receptor. If it binds but does not cause signaling, then it is an antagonist. If it binds and causes signaling, then it is an agonist.

If the activity sought for such a potential ligand is its ability to bind directly to FGF9, this activity can be detected by means of a standard binding assay whereby the potential ligand may be selected on the basis of its having the capability of binding to FGF9. An antagonist may also be a ligand which binds to FGF9 so as to prevent FGF9 from binding to FGFR3. The ability of the potential antagonist to have this activity may also be detected by means of a simple assay for binding to FGF9 in the presence of FGFR3, as is well known in the art.

Other assays which can be conducted for potential ligands relate to the effect of heparin on FGF9. Potential ligands which interact with the heparin binding pockets of FGF9 may have a significant effect on the activity of FGF9, such as by preventing the heparin-dependent oligomerization thereof. Thus, once a potential ligand which may affect the heparin binding property of FGF9 is selected by means of computer modeling, the ability of the potential ligand to actually interfere with such binding may be determined in a standard binding assay to test its effect on the FGF9-heparin interaction.

When a suitable drug is identified, a supplemental crystal can be grown which comprises a protein-ligand complex formed between the FGF9 protein and the drug. Preferably the crystal effectively diffracts X-rays allowing the determination of

the atomic coordinates of the protein-ligand complex to a resolution of greater than 5.0 Ås, more preferably greater than 3.0 Å, and even more preferably greater than 2.0 Å. The three-dimensional structure of the supplemental crystal can be determined by Molecular Replacement Analysis. Molecular replacement involves using a known 5 three-dimensional structure as a search model to determine the structure of a closely related molecule or protein-ligand complex in a new crystal form. The measured Xray diffraction properties of the new crystal are compared with the search model structure to compute the position and orientation of the protein in the new crystal. Computer programs that can be used include: X-PLOR and AMORE (Navaza, 1994). Once the position and orientation are known an electron density map can be calculated 10 using the search model to provide X-ray phases. Thereafter, the electron density is inspected for structural differences and the search model is modified to conform to the new structure. Other computer programs that can be used to solve the structures of such crystals include QUANTA, CHARMM, INSIGHT, SYBYL, MACROMODE, 15 and ICM.

For all of the drug screening assays described herein further refinements to the structure of the drug will generally be necessary and can be made by the successive iterations of any and/or all of the steps provided by the particular drug screening assay.

#### 20 BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a ribbon representation of the FGF9 dimer composed of chains A and D showing the carbohydrate moiety bound to each of the chains.

WO 02/24722

PCT/IL01/00871

Figure 3 shows the hydrogen bond network stabilizing the  $\beta 8/\beta 9$  loop. Molecule D is represented with the light colored chain on the left side of the figure, molecule A with darker chain trace on the right side of the figure.

Figure 4 shows a diagram of a system used to carry out the instructions

encoded by the storage medium of Figure 4A and 4B.

Figure 5A shows a cross-section of a magnetic storage medium.

Figure 5B shows a cross-section of an optically-readable data storage medium.

## **DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS**

#### 10 Overall Structure Description

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The core unit of the FGF9 structure (Fig. 1) is formed by residues 62 to 193 and is very similar to the structures of FGF1 and FGF2, as expected from the sequence alignment (Plotnikov et al. 1999). Further features of the schematic representation of the FGF9 dimer are expanded upon in the inventors' recent publication (Hecht et al. 2001 Acta Cryst. D57). The rms difference to Ca-atoms of FGF1 (Blaber et al, 1996, and pdb-id 2afg) and FGF2 (Zhang et al, 1991, and pdb-id 2FGF) is 0.8 Å. Major differences (rmsd > 1.5 Å) occur at Thr70/Gly71, where FGF1 and FGF2 have an additional glycine, at the loop Asp88/Ser90, which may be correlated with the C-terminal extension in FGF9, and at Tyr153/Arg161, where in FGF9 an insertion of three (relative to FGF1) or five (relative to FGF2) residues occurs. The loop Glu141/Asn146 shows some variability already in FGF1 and FGF2. Compared to FGF1 the largest difference in Ca-positions in this loop is 3.9 Å (at Ala142) while the largest difference is 1.9 Å (at Ala142) compared to FGF2. The loop

containing in FGF9 the glycosylation site at Asn79 is identical to that of FGF1 and FGF2. N-terminal sequencing and Maldi-mass-spectrometry indicated heterogeneity of the crystallized protein with the major components starting at residues 19, 34, 38, and 42. In the structure, residues become visible in one of the molecules at residue 45 with three flexible residues in an extended conformation turning into a helix between residues 48-62. In the other three molecules of the asymmetric unit the helical part is visible only from residue 52 onward. The C-terminal residues starting from residue 193 form an irregular helix which shows some variability in the four molecules of the asymmetric unit. Together these N- and C-terminal parts form an extension clearly separate from the core structure.

#### Quaternary Structure

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There is increasing evidence for the capacity of FGFs to undergo either spontaneous or heparin induced oligomerization, although the relation of such dimers and higher order oligomers to receptor binding and activation is still unclear. For FGF1 a heparin-linked dimeric structure has been reported (DiGabriele et al, 1998) while for FGF2 in the presence of heparin both monomeric and dimeric structures were observed (Faham et al, 1996). Moreover, chemical cross linking, ultracentrifugation experiments (Herr et al, 1997) and mass spectrometric techniques (Davis et al, 1999) provided evidence of self-oligomerization for FGF2 in the presence and in the absence of heparin. Nevertheless, in the structures of the FGF2 receptor complex (Plotnikov et al, 1999) and the FGF1 receptor complex (Stauber et al, 2000) both FGF molecules are separate and only linked via the receptor molecules. In these structures heparin is postulated to bind into a positively charged groove, created in the

receptor dimer with the two termini bound to the heparin-binding domains of the FGF2 molecules (Plotnikov et al, 1999, Stauber et al, 2000).

FGF9 readily dimerizes under physiological conditions, probably more easily than other FGFs, and dimers of FGF9 are frequently observed by 5 immunoblotting lysates of RCJ3.1C5.18 mesenchymal cells (Garofalo et al, 1999) and L-8. Accordingly, the FGF9 structure, crystallized in the absence of heparin, shows the four molecules of the asymmetric unit organized in two dimers related by noncrystallographic symmetry. The solvent accessible surface area, calculated with Grasp (Nicholls et al, 1991), varies between 8848 Å<sup>2</sup> and 9306 Å<sup>2</sup> for the individual molecules, depending on the length of the extensions. The surface areas of the dimeric 10 molecules, chains AD and BC, are 15826 Å<sup>2</sup> and 15481 Å<sup>2</sup>, yielding buried surface areas of 2422 Å<sup>2</sup> and 2420 Å<sup>2</sup> or approximately 1200 Å<sup>2</sup> per chain, well above the cutoff value of 400 Å<sup>2</sup> per chain used as one of the classification criteria by the Protein Quaternary Structure server PQS (http://pqs.ebi.ac.uk/pqs-doc/pqs-doc.shtml). More than half of this buried surface of the dimer is contributed by the N- and C-15 terminal extensions, as the buried area per dimer is reduced to 1040 Å<sup>2</sup> and 853 Å<sup>2</sup> when only the residues 62-193 of the FGF-core structure are used in the calculation. The lack of these structured terminal extensions therefore can be one of the reasons why similar dimer formation has not been observed, in the absence of heparin, in the FGF1 and FGF2 structures. For FGF2 the crystal structure with the highest resolution 20 (pdb-id 1bgf) showed disorder for the N-terminal first 19 to 20 residues (Ago et al. 1991), confirmed by NMR studies of complete FGF2 (Lozano et al, 1998; pdb-id 1rml) which showed disorder for the N-terminal 28 residues (Moy et al 1996). For

FGF1 the crystal structure with the highest resolution (Blaber et al, 1996) showed disorder for the N-terminal 9-10 residues (Blaber et al, 1996; pdb-id 2afg) and for the NMR structure a N-terminally at residue 25 truncated molecule was used (Lozano et al, 1998; pdb-id 1rml).

# 5 <u>Dimer Interface</u>

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The dimer interface in FGF9 consists mainly of hydrophobic contacts but includes 4 hydrogen bonds and two salt bridges, related by non-crystallographic two-fold symmetry. The hydrogen bonds connect the side chain of Y67 with the side chain of N143 and the side chain of R64 with the backbone carbonyl of V192 where the C-terminal extension starts, while the salt bridges connect R62 with D193, also at the start of the C-terminal extension. The hydrophobic contacts are concentrated in a prominent hydrophobic cluster of the residues L54, L57, I60, L61, P194, V197 and L200 at the base of the structure, close to where the terminal extensions join the core. At the center and top of the core structure P191, L188 together with P189 and the hydrophobic parts of the side chains of R190, W144 and Y145 form an additional, though less pronounced hydrophobic patch. A potentially important structural difference between FGF9 and FGF1 and FGF2 occurs in the dimer interface with the noticeable shift of the β-turn linking β8 and β9 (residues 139-146, corresponding to 96-104 in FGF2). In FGF9, the loop conformation is fixed by a hydrogen bond network involving residues H181, H186, E141 and E142 (Fig. 3). The arrangement is stabilized further by a salt bridge between E142 and R69. Residues from this loop have been implicated in receptor binding (Venkataraman et al, 1999) and in the experimental FGF receptor complexes, where residues from this loop make extensive

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WO 02/24722 PCT/IL01/00871

contacts to the receptor, the loop has been found to undergo some conformational change upon receptor binding (Plotnikov et al, 1999; Stauber et al, 2000). This conformational adaptation is likely to be much reduced in FGF9 due to the hydrogen bonding network. Stabilization of this loop in a particular conformation by residues not directly involved in receptor binding, as in FGF9, therefore could have significant implications on receptor affinity. In the structure of FGF7 (Ye et al, 1999, pdb-id 1QQK), where E142 and R69 are conserved, the loop is in a conformation similar to FGF1 and FGF2 but lacks the salt bridge. Most likely the loop conformation in FGF9 is influenced by the hydrogen bond between E141 and H181, which is unique to FGF9 and FGF16. Similar interactions could occur in FGF5, which has two glutamines in these places, and in FGF10, which has glutamic acid and lysine.

With the exception of residues from the terminal extensions most of the residues (Fig. 1) involved in the dimer interface in FGF9 correspond to residues identified as belonging to the major receptor binding sites in FGF2 (Venkataraman et al, 1999; Plotnikov et al, 1999; Stauber et al, 2000; Plotnikov et al, 2000). This is particularly true for residues Y67, Y145, L188, I60 and H186, corresponding in FGF2 to Y24, Y103, L140, F17 and L138 and in FGF1 to residues Y15, Y94, L133, Y8 and L131 which were found by Plotnikov et al, 1999, and Stauber et al, 2000, to be in contact with the receptor. These residues are almost completely buried (less than 10 Ų solvent accessible surface, calculated with Areaimol (CCP4, 1994)) in the FGF9 dimer interface and, in order for them to become accessible to the receptor molecule, dissociation of these pre-formed dimers has to occur at least in FGF9.

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WO 02/24722 PCT/IL01/00871

In the experimental FGF receptor complexes (Plotnikov et al, 1999; Stauber et al, 2000) both the FGF ligand molecules are separate and linked only by heparin via the receptor molecules. A complete separation of the FGF9 dimer requires the separation of the extensive hydrophobic interactions at the N- and C-terminal extensions. As it seems unlikely that these hydrophobic residues remain exposed to solvent, at least three alternative scenarios can be proposed.

- 1. At present there is no experimental evidence that residues outside of the core-FGF structure participate in receptor binding although in the FGF1/FGFR2 complex both FGF termini are in the vicinity of the receptor. In addition, preliminary results suggest that a complete deletion of both termini may have no apparent functional implications as evidenced by the capacity of a truncated form to both bind receptor and induce cell proliferation (Adar et al, in preparation). The function of these terminal residues could be therefore to provide stability to the unliganded FGF-molecules, probably correlated with the function as a non-cleaved secretion signal attributed to the 60 N-terminal residues by Revest et al (1999), but become redundant and flexible at receptor binding. It is intriguing to suggest that the observed heparinindependent self association of FGF9 could have physiological significance by rendering the non-receptor bound FGF in a protected, non active form by utilizing the same residues defined for receptor binding for a homotypic dimer interface.
- 2. These residues remain as a connecting region between the FGF molecules after a conformational change that exposes the buried receptor binding residues. Preliminary modeling suggests that this could be possible with hinge regions

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WO 02/24722 PCT/IL01/00871

probably in the area of residues 62 and 190-192. In this case the terminal extensions could connect adjacent ligand/receptor complexes to form multimeric assemblies.

3. In the experimental receptor/ligand complexes (Plotnikov et al, 1999, Stauber et al, 2000) the secondary receptor binding sites are different from the sites identified by site directed mutagenesis as influencing receptor binding (Springer et al, 1994, Zhu et al, 1997, Zhu et al, 1998). This discrepancy presently is not clear and may point to the involvement of other determinants in FGF in receptor binding and activation.

At least some of the FGFs, especially FGF3 and FGF16, show in the sequence alignment a similar pattern of hydrophobic and hydrophilic residues in these terminal extensions. However, due to the high sequence diversity and the structural flexibility, still more structural investigations of these homologs is yet required.

Potential Heparin Binding Sites

Heparin binding sites have been structurally identified in the heparin linked FGF1 dimer (DiGabriele et al, 1998; pdb-id 2axm) and in heparin complexes with FGF2 monomers (Faham et al, 1996; pdb-id 1bfb) where prominently interactions of basic residues with the sugars, sulphate or carboxylate groups are involved. The surface of FGF9 contains three clusters of basic residues potentially suitable for heparin binding. At least one of these sites contains a bound sulphate molecule while in the other cases the discrimination between bound water and sulphate is less certain due to the limited resolution. The first site is in a pocket created by the insertion at Tyr153/Arg161 and the sulphate ion is bound to R180, Y163 and the backbone nitrogen of R161. This pocket is at approximately 14 Å

distance from the nearest heparin binding site in FGF1 and FGF2 but could occur also in FGF16, FGF13 and FGF11 which have a highly homologous insertion and identical or homologous residues in position 163 and 180. The second site, where R137, K154 and R161 form a cluster highly suggestive of sulphate binding, is even further away from the FGF1 and FGF2 homologous sites and is located almost on the opposite side of the molecule. A similar arrangement could occur in FGF16 as well, where R161 is replaced by a glutamine. The third site is formed by R173 and R177 which correspond to K118 and R122 in the heparin binding loop in FGF1 (DiGabriele et al. 1998; pdb-id 2axm) and to K125 and K129 in FGF2 (Faham et al, 1996; pdb-id 1bfb). 10 Fitting the heparin structures observed in FGF1 (DiGabriele et al. 1998) and FGF2 (Faham et al, 1996) to FGF9, however, shows that the high affinity heparin binding site described by the residues N28, K126 and Q135 in FGF2 (Faham et al, 1996) is partially blocked in FGF9 by the side chain of F184 which makes the backbone nitrogen atoms less accessible for sulphate binding as observed for FGF2 and FGF1. 15 In the experimental FGF2/FGFR1 complex, this site contains a bound sulphate ion and is proposed to bind the terminal part of heparin (Plotnikov et al. 1999). Sulphate ions visible in the experimental FGF1/FGFR2 complex (Stauber et al, 2000; pdb-id 1DJS), however, seem to correspond well with the potential heparin binding sites on FGF9. In this complex three sulphate ions are bound to FGF1, K128, K118, and R122, 20 probably with contributions by K112 and R119. In FGF9 K183 corresponds to FGF1 K128 and, in addition, R69 is directed very close to the sulphate bound to FGF1 K128. FGF9 R173 and R177 correspond to FGF1 K118 and R122 and only a small adjustment due to F184 would be necessary for similar sulphate binding to the

complex. These fine adjustments in the spatial organization of the heparin binding residues in FGF9 may well coordinate with the distinct structural variants of sulfated domains on heparin sulfates, required for binding and activation of different members of the FGF family as well as of other heparin binding growth factors (Ornitz, 2000).

#### 5 Computer Representation

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The FGF9 X-ray coordinate data, when used in conjunction with a computer programmed with software to translate those coordinates into the 3-dimensional structure of FGF9 may be used for a variety of purposes, especially for purposes relating to drug discovery. Such software for generating 3-dimensional graphical representations are known and commercially available. The ready use of the coordinate data requires that it be stored in a computer-readable format. Thus, in accordance with the present invention, data capable of being displayed as the 3-dimensional structure of FGF9 and portions thereof and their structurally similar homologs is stored in a machine-readable storage medium, which is capable of displaying a graphical 3-dimensional representation of the structure.

Therefore, another embodiment of this invention provides a machine-readable data storage medium, comprising a data storage material encoded with machine-readable data which, when used by a machine programmed with instructions for using said data, displays a graphical 3-dimensional representation of a molecule or molecular complex comprising FGF9, or a homolog of said molecule or molecular complex, wherein said homolog comprises a binding pocket that has a root mean square deviation from the backbone atoms of said amino acids of not more than about 1.15Å.

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WO 02/24722 PCT/IL01/00871

Even more preferred is a machine-readable data storage medium that is capable of displaying a graphical 3-dimensional representation of a molecule or molecular complex that is defined by the structure coordinates of all of the amino acids in Figure 2 or a homolog of said molecule or molecular complex, wherein said homolog has a root mean square deviation from the backbone atoms of all of the amino acids in Figure 2 of not more than about 1.15Å.

According to an alternate embodiment, the machine-readable data storage medium comprises a data storage material encoded with a first set of machine-readable data which comprises the Fourier transform of the structure coordinates set forth in Figure 2, and which, when using a machine programmed with instructions for using said data, can be combined with a second set of machine-readable data comprising the X-ray diffraction pattern of another molecule or molecular complex to determine at least a portion of the structure coordinates corresponding to the second set of machine-readable data.

For example, the Fourier transform of the structure coordinates set forth in Figure 2 may be used to determine at least a portion of the structure coordinates of FGF9.

According to an alternate embodiment, this invention provides a computer for producing a 3-dimensional representation of a molecule or molecular complex, wherein said molecule or molecular complex comprises all of the FGF9 amino acids, wherein said computer comprises:

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WO 02/24722 PCT/IL01/00871

(a) a machine-readable data storage medium comprising a data storage material encoded with machine-readable data, wherein said machine-readable data comprises the structure coordinates of FGF9 or portions thereof;

- (b) a working memory for storing instructions for processing saidmachine-readable data:
  - (c) a central-processing unit coupled to said working memory and to said machine-readable data storage medium, for processing said machine-readable data into said 3-dimensional representation; and
- (d) an output hardware coupled to said central processing unit, for receiving said 3-dimensional representation.

Figure 4 demonstrates one version of these embodiments. System 10 includes a computer 11 comprising a central processing unit ("CPU") 20, a working memory 22 which may be, e.g., RAM (random-access memory) or "core" memory, mass storage memory 24 (such as one or more disk drives or CD-ROM drives), one or more cathode-ray tube ("CRT") display terminals 26, one or more keyboards 28, one or more input lines 30, and one or more output lines 40, all of which are interconnected by a conventional bidirectional system bus 50.

Input hardware 36, coupled to computer 11 by input lines 30, may be implemented in a variety of ways. Machine-readable data of this invention may be inputted via the use of a modem or modems 32 connected by a telephone line or dedicated data line 34. Alternatively or additionally, the input hardware 36 may comprise CD-ROM drives or disk drives 24. In conjunction with display terminal 26, keyboard 28 may also be used as an input device.

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WO 02/24722 PCT/IL01/00871

Output hardware 46, coupled to computer 11 by output lines 40, may similarly be implemented by conventional devices. By way of example, output hardware 46 may include CRT display terminal 26 for displaying a graphical representation of a binding pocket of this invention using a program such as QUANTA as described herein. Output hardware might also include a printer 42, so that hard copy output may be produced, or a disk drive 24, to store system output for later use.

In operation, CPU 20 coordinates the use of the various input and output devices 36, 46 coordinates data accesses from mass storage 24 and accesses to and from working memory 22, and determines the sequence of data processing steps. A number of programs may be used to process the machine-readable data of this invention. Such programs are discussed in reference to the computational methods of drug discovery as described herein. Specific references to components of the hardware system 10 are included as appropriate throughout the following description of the data storage medium.

Figure 5A shows a cross section of a magnetic data storage medium 100 which can be encoded with a machine-readable data that can be carried out by a system such as system 10 of Figure 4. Medium 100 can be a conventional floppy diskette or hard disk, having a suitable substrate 101, which may be conventional, and a suitable coating 102, which may be conventional, on one or both sides, containing magnetic domains (not visible) whose polarity or orientation can be altered magnetically. Medium 100 may also have an opening (not shown) for receiving the spindle of a disk drive or other data storage device 24. The magnetic domains of

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WO 02/24722 PCT/IL01/00871

coating 102 of medium 100 are polarized or oriented so as to encode in manner which may be conventional, machine-readable data such as that described herein, for execution by a system such as system 10 of Figure 4.

Figure 5B shows a cross-section of an optically-readable data storage medium 110 which also can be encoded with such a machine-readable data, or set of instructions, which can be carried out by a system such as system 10 of Figure 4.

Medium 110 can be a conventional compact disk read only memory (CD-ROM) or a rewritable medium such as a magneto-optical disk that is optically readable and magneto-optically writable. Medium 100 preferably has a suitable substrate 111, which may be conventional, and a suitable coating 112, which may be conventional, usually of one side of substrate 111.

In the case of CD-ROM, as is well known, coating 112 is reflective and is impressed with a plurality of pits 113 to encode the machine-readable data. The arrangement of pits is read by reflecting laser light off the surface of coating 112. A protective coating 114, which preferably is substantially transparent, is provided on top of coating 112.

In the case of a magneto-optical disk, as is well known, coating 112 has no pits 113, but has a plurality of magnetic domains whose polarity or orientation can be changed magnetically when heated above a certain temperature, as by a laser (not shown). The orientation of the domains can be read by measuring the polarization of laser light reflected from coating 112. The arrangement of the domains encodes the data as described above.

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WO 02/24722 PCT/IL01/00871

As mentioned above, the FGF9 X-ray coordinate data is useful for screening and identifying drugs that inhibit FGF9. For example, the structure encoded by the data may be computationally evaluated for its ability to associate with putative substrates or ligands. Such compounds that associate with FGF9 may inhibit FGF9, and are potential drug candidates. Additionally or alternatively, the structure encoded by the data may be displayed in a graphical 3-dimensional representation on a computer screen. This allows visual inspection of the structure, as well as visual inspection of the structure's association with the compounds.

Thus according to another embodiment, the method evaluates the potential of a chemical entity to associate with a molecule or molecular complex defined by the structure coordinates of all of the FGF9 amino acids, as set forth in Figure 2, or a homolog of said molecule or molecular complex having a root mean square deviation from the backbone atoms of said amino acids of not more than 1.1Å.

This method comprises the steps of:

- a) creating a computer model of the molecular or molecular complex using the structure coordinates as set forth in Figure 2, or a homolog of said molecule or molecular complex having a root mean square deviation from the backbone atoms of said amino acids not more than about 1.15Å;
  - b) employing computational means to perform a fitting operation between the chemical entity and said computer model of the binding pocket; and
    - c) analyzing the results of said fitting operation to quantify the association between the chemical entity and the binding pocket model.

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WO 02/24722 PCT/IL01/00871

The term "chemical entity", as used herein, refers to chemical compounds or ligands, complexes of at least two chemical compounds, and fragments of such compounds or complexes.

More preferred is the use of the atomic coordinates of all the amino acids of FGF9 according to Figure  $2 \pm a$  root mean square deviation from the backbone atoms of said amino acids of not more than 1.15Å, to generate a 3-dimensional structure of FGF9.

For the first time, the present invention permits the use of molecular design techniques to identify, select or design potential inhibitors of FGF9, based on the structure of thereof. Such a predictive model is valuable in light of the high costs associated with the preparation and testing of the many diverse compounds that may possibly bind to the FGF9 protein.

According to this invention, a potential FGF9 inhibitor may now be evaluated for its ability to bind a FGF9-like binding pocket prior to its actual synthesis and testing. If a proposed compound is predicted to have insufficient interaction or association with the binding pocket, preparation and testing of the compound is obviated. However, if the computer modeling indicates a strong interaction, the compound may then be obtained and tested for its ability to bind.

A potential inhibitor of a FGF9-like binding pocket may be

computationally evaluated by means of a series of steps in which chemical entities or
fragments are screened and selected for their ability to associate with the FGF9-like
binding pockets.

WO 02/24722 PCT/IL01/00871

One skilled in the art may use one of several methods to screen chemical entities or fragments for their ability to associate with a FGF9-like binding pocket. This process may begin by visual inspection of, for example, a FGF9-like binding pocket on the computer screen based on the FGF9 structure coordinates in

5 Figure 2 or other coordinates which define a similar shape generated from the machine-readable storage medium. Selected fragments or chemical entities may then be positioned in a variety of orientations, or docked, within that binding pocket as defined above. Docking may be accomplished using software such as Quanta and Sybyl, followed by energy minimization and molecular dynamics with standard molecular mechanics force fields, such as CHARMM and AMBER.

Specialized computer programs may also assist in the process of selecting fragments or chemical entities. These include:

- 1. GRID (Goodford, 1985), which is available from Oxford University, Oxford, UK.
- 2. MCSS (Miranker et al, 1991), which is available from Molecular Simulations, San Diego, CA.
- 3. AUTODOCK (Goodsell et al, 1990), which is available from Scripps Research Institute, La Jolla, CA.
- 4. DOCK (Kuntz et al, 1982), which is available from University of California, San Francisco, CA.

Once suitable chemical entities or fragments have been selected, they can be designed or assembled into a single compound or complex. Assembly may be preceded by visual inspection of the relationship of the fragments to each other on the

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WO 02/24722 PCT/IL01/00871

3-dimensional image displayed on a computer screen in relation to the structure coordinates of FGF9. This would be followed by manual model building using software such as Quanta or Sybyl (Tripos Associates, St. Louis, MO). Useful programs to aid one of skill in the art in connecting the individual chemical entities or fragments include:

- 1. CAVEAT (Bartlett et al, 1989; Lauri et al, 1994), which is available from the University of California, Berkeley, CA.
- 3D Database systems, such as ISIS (MDL Information Systems, San Leandro, CA). This area is reviewed in Martin, 1992.
- 3. HOOK (Eisen et al, 1994), which is available from Molecular Simulations, San Diego, CA.

Instead of proceeding to build an inhibitor of a FGF9-like binding pocket in a step-wise fashion one fragment or chemical entity at a time as described above, inhibitory or other FGF9 binding compounds may be designed as a whole or "de novo" using either an empty binding site or optionally including some portion(s) of a known inhibitor(s). There are many de novo ligand design methods including:

- 1. LUDI (Bohm, 1992), which is available from Molecular Simulations Incorporated, San Diego, CA.
- 2. LEGEND (Nishibata et al, 1991), which is available from Molecular20 Simulations Incorporated, San Diego, CA.
  - 3. LeapFrog (available from Tripos Associates, St. Louis, MO).
  - 4. SPROUT (Gillet et al, 1993), which is available from the University of Leeds, UK.

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WO 02/24722 PCT/IL01/00871

Other molecular modeling techniques may also be employed in accordance with this invention (see, e.g., Cohen et al, 1990; Navia et al, 1992; Balbes et al, 1994; Guida, 1994).

Once a compound has been designed or selected by the above methods, the efficiency with which that entity may bind to a FGF9 binding pocket may be tested and optimized by computational evaluation. For example, an effective FGF9 binding pocket inhibitor must preferably demonstrate a relatively small difference in energy between its bound and free states (i.e., a small deformation energy of binding). Thus, the most efficient FGF9 binding pocket inhibitors should preferably be designed with a deformation energy of binding of not greater than about 10 kcal/mole, more preferably, not greater than 7 kcal/mole. FGF9 binding pocket inhibitors may interact with the binding pocket in more than one of multiple conformations that are similar in overall binding energy. In those cases, the deformation energy of binding is taken to be the difference between the energy of the free entity and the average energy of the conformations observed when the inhibitor binds to the protein.

An entity designed or selected as binding to a FGF9 binding pocket may be further computationally optimized so that in its bound state it would preferably lack repulsive electrostatic interaction with the target enzyme and with the surrounding water molecules. Such non-complementary electrostatic interactions include repulsive charge-charge, dipole-dipole and charge-dipole interactions.

Specific computer software is available in the art to evaluate compound deformation energy and electrostatic interactions. Examples of programs designed for such uses include: Gaussian 99, revision C (M. J. Frisch, Gaussian, Inc., Pittsburgh,

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WO 02/24722 PCT/IL01/00871

PA, ©1995); AMBER, version 4.1 (P. A. Kollman, University of California at San Francisco, ©1995); QUANTA/CHARMM (Molecular Simulations, Inc., San Diego, CA ©1995); Insight II/Discover (Molecular Simulations, Inc., San Diego, GA ©1995); DelPhi (Molecular Simulations, Inc., San Diego, CA ©1995); and AMSOL (Quantum Chemistry Program Exchange, Indiana University). These programs may be implemented, for instance, using a Silicon Graphics workstation such as an Indigo<sup>2</sup> with "IMPACT" graphics. Other hardware systems and software packages will be known to those skilled in the art.

Another approach enabled by this invention, is the computational screening of small molecule databases for chemical entities or compounds that can bind in whole, or in part, to a FGF9 binding pocket. In this screening, the quality of fit of such entities to the binding site may be judged either by shape complementarily or by estimated interaction energy (Meng et al, 1992).

According to another embodiment, the invention provides compounds that associate with a FGF9-like binding pocket produced or identified by the method set forth above.

The structure coordinates set forth in Figure 2 can also be used to aid in obtaining structural information about another crystallized molecule or molecular complex. This may be achieved by any of a number of well-known techniques, including molecular replacement.

In order that this invention be more fully understood, the following example is set forth. This example is for the purpose of illustration only and is not to be construed as limiting the scope of the invention in any way.

#### **EXAMPLE:**

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# Materials and Methods

cDNA was isolated as a BamHI/blunt fragment from pET vector (Kuriyama et al, 1995) and subcloned into the vector pBacPAK9 digested with BgIII and SmaI. Plasmids containing the cDNA species in proper orientation were isolated from bacteria, used for transfection into Sf9 cells with purified linearized baculovirus DNA. Screening for recombinant viruses, cloning and propagation or rec. viruses were performed as described (Fiebich et al, 1993). For purification of FGF9 protein from the insect cell serum-free supernatant, it was adjusted to 0.6 M NaCl and purified over a 5 ml HiTrap heparin column (Pharmacia Amersham). FGF9 containing samples were pooled, diluted 1:3 with 20 mM Tris/Cl pH 7.4 and applied to a 5-ml TSK-heparin-affinity FPLC column (TosoHaas). Bound proteins were eluted with a 20ml gradient of 0.4-1.5 M NaCl in buffer A (20 mM Tris/Cl, pH 7.4). Aliquots of 1 ml fraction containing FGF9 were used for SDS/PAGE and for silver staining of the gel.

The full-length coding region for human FGF9 (Miyamoto et al, 1993)

The protein concentration was measured with a standard assay (BCA, Pierce). For amino-terminal sequencing of glycosylated rh FGF9, 20 mg protein from the biological active fractions (estimated with BALBc-3T3 cells, not shown) were loaded onto a Applied Biosystems 473 A gas-phase protein sequenator. Twenty rounds of Edman degradation were carried out using standard protocols and chemicals supplied by Applied Biosystems (ca. 50% pos. 19 and 50% pos. 34 of the coding region).

Crystals were grown with the sitting drop method to a typical size of 0.2×0.2×0.2 mm from solutions containing FGF9 at a concentration of 2.1 mg/ml and 2.0 M ammonium sulphate, buffered at pH 5.2 with 0.1 M MES/Tris buffer. The statistics of the native data set, collected at the MPG-GBF beamline BW6 of the DESY synchrotron from a shock-cooled crystal to a resolution of 2.6 Å, are given in 5 Table 1. Indexing and scaling the data set with Mosflm (CCP4, 1994) and Scala (CCP4, 1994) proved the space group to be tetragonal I41 with lattice constants a=151.9 Å, c=117.2 Å. The asymmetric unit contains four molecules showing clear two-fold symmetry in a pseudo-I4122 arrangement and in addition a pseudo-cubic 10 three-fold axis in the self-rotation function calculated with Glrf (Tong et al, 1997). The structure was solved by molecular replacement. The successful run of EPMR (Kissinger et al, 1999) used the coordinates of FGF1 (Blaber et al, 1996; pdb-id 2afg). modified by replacement of all non-glycine residues by alanine, and identified clearly three of the four molecules in the asymmetric unit with a correlation factor of 0.296. 15 The fourth molecule was placed manually by complementing the third molecule to a dimer identical to the first two molecules. The structure was refined using CNS (Brunger et al, 1998), Refmac (CCP4, 1994), and O (Jones et al, 1991). Water molecules were added using Arpp/Refmac (CCP4, 1994) until the decrease of the free R-factor stopped. In the last stages of the refinement positional restraints for the non-20 crystallographic symmetry were dropped, but, due to the limited resolution, only grouped temperature factors for main chain and side chain atoms were refined.

TABLE 1 **Data Set and Refine Statistics** 

Space Group	<b>I</b> 4 <sub>1</sub>
Unit Cell Parameters	
a (Å)	151.9
c (Å)	117.2
Resolution Range (Å)	39.5-2.6
Unique Reflections	40985
Completeness (%)	99.9 (99.9)
I/sigma(I)	9.5 (3.4)
R <sub>all</sub> (%)	22.0
R <sub>free</sub> (%)	25.0
Resolution	40-2.6
nr. residués	624
nr. sugars	10
nr. sulfates	8
nr. waters	141
Coord. Error *	0.18
Core Region (%)‡	90.0
ncs-rms (Å)†	0.58
values in parenthesis are for the highest resolution shell 2.74 Å-2.6	

 $R_{\text{merge}} = \left(\sum I_{i,}(hkl) - \langle I(hkl) \rangle\right) / \left(\sum I_{i,}(hkl)\right),$  $R_{all} = \left(\sum F_0(hkl) - F_c(hkl)\right) / \left(\sum F_0(hkl)\right)$ 

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† rms deviation of Ca protein atoms related by non-crystallographic symmetry calculated with LSQMAN (Kleywegt et al, 1997)

N-terminal sequencing and Maldi-mass-spectrometry indicated

15 heterogeneity of the crystallized protein with the major components starting at residues

<sup>\*</sup> calculated with SIGMAA (CCP4) and ‡ calculated with PROCHECK (CCPR)

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WO 02/24722 PCT/IL01/00871

19, 34, 38, and 42 (Swissprot id FGF9\_HUMAN). The glycoconjugate is, according to Maldi-mass-spectrometry, of the three-mannosyl insect type with 2 N-acetylglucosamines, 3 mannose and one fucose moiety, a minor component having two fucose molecules, as expected from the expression system. The structure shows clearly in all four molecules at the N79 glycosylation site density for the two N-acetylglucosamines together with one fucose molecule, the rest of the carbohydrate is disordered. In the crystal all four molecules of the asymmetric unit show flexibility of the N-terminal and, to a lesser extent, the C-terminal residues.

The first residue visible in the electron density is in one molecule

Leu45 and in the others Thr52, C-terminal residues are visible up to 208, the native C
terminus, in one molecule, to 206 in two others, and to 204 in the last molecule. The

average rmsd between all Ca-atoms common to the four molecules in the asymmetric

unit is 0.6 and 0.3 for the residues 62 to 193. The final refinement statistics for the

model consisting of 623 amino acid residues, 10 carbohydrate, 141 water and 8

sulphate molecules are given in Table 1. The coordinates are set forth in Figure 2.

The foregoing description of the specific embodiments will so fully reveal the general nature of the invention that others can, by applying current knowledge, readily modify and/or adapt for various applications such specific embodiments without undue experimentation and without departing from the generic concept, and, therefore, such adaptations and modifications should and are intended to be comprehended within the meaning and range of equivalents of the disclosed embodiments. It is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation. The means, materials,

and steps for carrying out various disclosed functions may take a variety of alternative forms without departing from the invention. Thus the expressions "means to..." and "means for...", or any method step language, as may be found in the specification above and/or in the claims below, followed by a functional statement, are intended to define and cover whatever structural, physical, chemical or electrical element or structure, or whatever method step, which may now or in the future exist which carries out the recited function, whether or not precisely equivalent to the embodiment or embodiments disclosed in the specification above, i.e., other means or steps for carrying out the same functions can be used; and it is intended that such expressions be given their broadest interpretation.

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35

WO 02/24722 PCT/IL01/00871

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### WHAT IS CLAIMED IS:

10

- 1. An FGF9 crystal in a tetragonal space group I4<sub>1</sub> with lattice constants a=151.9 Å and c=117.2 Å.
- A crystal in accordance with claim 1 refined to an R-value of about 22% at 2.6
   Å resolution.
  - 3. A composition consisting essentially of FGF9 in crystalline form.
  - 4. A method of using the crystal of claim 1 in a drug screening assay, comprising:
  - (a) selecting a potential ligand by performing rational drug design with the three-dimensional structure determined for the crystal, wherein said selecting is performed in conjunction with computer modeling;
    - (b) contacting the potential ligand with FGF9; and
  - (c) detecting the binding of the potential ligand for FGF9, wherein a potential drug is selected on the basis of its having the capability of binding to FGF9.
  - 5. A method of using the crystal of claim 1 in a drug screening assay, comprising:
- 15 (a) selecting a potential ligand by performing rational drug design with the three-dimensional structure determined for the crystal, wherein said selecting is performed in conjunction with computer modeling;
  - (b) contacting the potential ligand with FGFR3; and
- (c) detecting the binding of the potential ligand to FGFR3, wherein a

  potential drug is selected on the basis of its having the capability of binding to FGFR3

  with a greater affinity than that of FGF9 for FGFR3.

5

20

WO 02/24722 PCT/IL01/00871

6. A method of using the crystal of claim 1 in a drug screening assay comprising:

- (a) selecting a potential antagonist by performing rational drug design with the three-dimensional structure determined for the crystal, wherein said selecting is performed in conjunction with computer modeling;
  - (b) adding the potential antagonist to a mixture of FGF9 and FGFR3; and
- (c) detecting the ability of the potential antagonist to prevent binding of FGF9 to FGFR3, wherein a potential antagonist that inhibits the binding of FGF9 to FGFR3 is selected as a potential drug.
- 7. A method in accordance with any one of claims 4-6, wherein said potential ligand or potential antagonist is a mutant or fragment of FGF9.
  - 8. A crystal in accordance with claim 1, wherein the four molecules of the asymmetric unit are organized in two dimers related by non-crystallographic symmetry.
  - 9. A model of FGF9, wherein said model represents a three-dimensional structure that substantially conforms to the atomic coordinates of Figure 2.
- 15 10. A computer-assisted method of structure based drug design of bioactive compounds using the model of claim 9, comprising:

providing said model in the form of a computer image generated when the coordinates listed in Figure 2 are analyzed on a computer using a graphical display software program to create an electronic file of said image and visualizing said electronic files on a computer capable of representing said electronic file as a three-dimensional image;

designing a chemical compound using said computer image; and

chemically synthesizing said chemical compound.

- 11. A method in accordance with claim 10, wherein said step of designing comprises computational screening of one or more databases of chemical compounds in which the three-dimensional structure of said compounds are known.
- 5 12. A three-dimensional computer image of the three-dimensional structure of FGF9.
  - 13. The image of claim 12, wherein said structure substantially conforms with the three-dimensional coordinates listed in Figure 2.
- 14. A computer-readable data storage medium comprising a data storage material

  encoded with computer-readable data, wherein said computer-readable data comprises a

  set of three-dimensional coordinates of FGF9 having a three-dimensional structure that

  substantially conforms to the atomic coordinates of Figure 2, wherein, using a graphical

  display software program, said data creates an electronic file that can be visualized on a

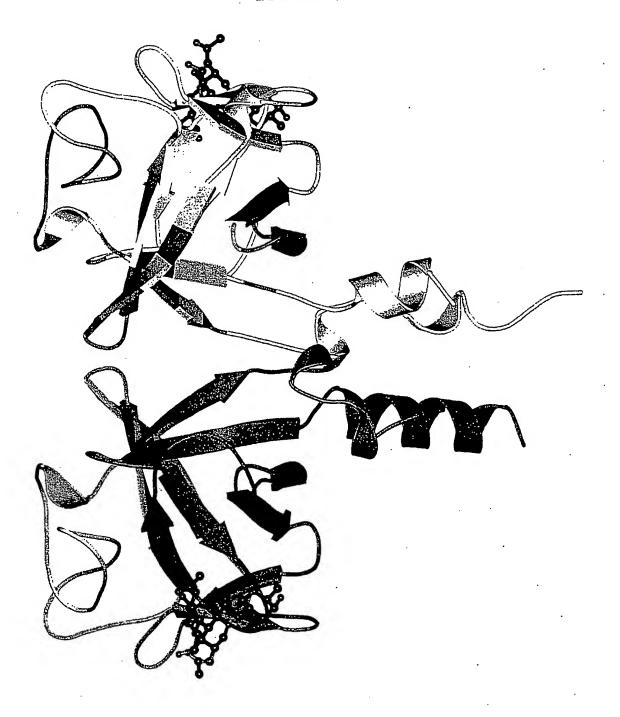
  computer capable of representing said electronic file as a three-dimensional image.
- 15. A computer for producing a three-dimensional representation of FGF9, wherein said computer comprises:
  - a computer-readable data storage medium in accordance with claim 14;
  - a working memory for storing instructions for processing said computer-readable data;
  - a central-processing unit coupled to said working memory and to said computer-readable
- data storage medium, for processing said computer-readable data into said threedimensional representation; and

an output hardware coupled to said central processing unit, for receiving said three-dimensional representation.

WO 02/24722

PCT/IL01/00871

# FIGURE 1



WO 02/24722

WO 02/24722 PCT/IL01/00871

#### FIGURE 2

```
REMARK coordinates from minimization and B-factor refinement
 REMARK refinement resolution: 500.0 - 2.6 A
 REMARK starting r= 0.2186 free_r= 0.2494
 REMARK final r= 0.2188 free_r= 0.2500
 REMARK msd bonds= 0.006201 rmsd angles= 1.30156
 REMARK B rmsd for bonded mainchain atoms= $brms_bond_1 target= &bsig_main
 REMARK B rmsd for angle mainchain atoms= $brms_angl_1 target= &asig_main
 REMARK target= mlf final wa= 1.56562 final rweight=$b_rweight
 REMARK md-method= cartesian annealing schedule= slowcool
 REMARK starting temperature= 2000 total md steps= 20 * 50
 REMARK cycles= 2 coordinate steps= 50 B-factor steps= 30
 REMARK sg= I4(1) a= 151.95 b= 151.95 c= 117.23 alpha= 90 beta= 90 gamma= 90
REMARK topology file 1 : CNS_TOPPAR:protein.top
REMARK topology file 2 : CNS_TOPPAR:dna-ma.top
REMARK topology file 3 : CNS_TOPPAR:water.top
REMARK topology file 4 : CNS_TOPPAR:ion.top
REMARK topology file 5 : CNS_TOPPAR:carbohydrate.top
REMARK parameter file 1 : CNS_TOPPAR:protein_rep.param
REMARK parameter file 2 : CNS_TOPPAR:dna-ma_rep.param
REMARK parameter file 3 : CNS_TOPPAR:water_rep.param
REMARK parameter file 4 : CNS_TOPPAR:ion.param
REMARK parameter file 5 : CNS_TOPPAR:carbohydrate.param
REMARK molecular structure file: fgf9_60.mtf
REMARK input coordinates: fgf_r60.xpdb
REMARK reflection file= fgf9h t-u.refl
REMARK ncs= none
REMARK B-correction resolution: 6.0 - 2.6
REMARK initial B-factor correction applied to fobs:
REMARK B11= 3.191 B22= 3.191 B33= -6.383
REMARK B12= 0.000 B13= 0.000 B23= 0.000
REMARK B-factor correction applied to coordinate array B: 0.876
REMARK bulk solvent: density level= 0.360313 e/A^3, B-factor= 49.9235 A^2
REMARK reflections with |Fobs|/sigma_F < 0.0 rejected
REMARK reflections with |Fobs| > 10000 * rms(Fobs) rejected
REMARK theoretical total number of refl. in resol. range: 40991 ( 100.0 % )
REMARK number of unobserved reflections (no entry or |F|=0): 16 ( 0.0 % )
REMARK number of reflections rejected:
                                                        0(0.0%)
REMARK total number of reflections used:
                                                      40975 (100.0 %)
REMARK number of reflections in working set:
                                                        38917 (94.9 %)
REMARK number of reflections in test set:
                                                      2058 ( 5.0 % )
CRYST1 151.950 151.950 117.230 90.00 90.00 90.00 141
REMARK FILENAME="/sf/bhf/fgf/cns/fgf9_r60_1.pdb"
REMARK DATE:17-Jul-00 12:21:18
                                       created by user, bhf
REMARK VERSION:1.0
ATOM
                 CB
                         THR
                                 Α
                                         52
                                               62.332
                                                         98.192
                                                                    -4.398
                                                                              1.00
                                                                                       98.81 A
ATOM
             2
                 OG1
                         THR . A
                                         52
                                               63.583
                                                         98.020
                                                                    -5.081
                                                                              1.00
                                                                                       98.81 A
ATOM
             3
                 CG2
                         THR
                                         52
                                 Α
                                               62,575
                                                         98.803
                                                                    -3.021
                                                                              1.00
                                                                                       98.81
                                                                                              Α
MOTA
             4
                 C
                         THR
                                         52
                                 Α
                                               62.621
                                                         95.802
                                                                    -3.722
                                                                              1.00
                                                                                      100.00
                                                                                              Α
MOTA
             5
                 0
                         THR
                                 Α
                                         52
                                               63,042
                                                         95.885
                                                                    -2.565
                                                                              1.00
                                                                                      100.00
                                                                                              Α
MOTA
             6
                 Ν
                         THR
                                 Α
                                         52
                                               60.404
                                                         96.933
                                                                    -3.410
                                                                              1.00
                                                                                      100.00
                                                                                              A·
MOTA
             7
                 CA
                         THR
                                 Α
                                         52
                                               61.620
                                                         96.823
                                                                    -4.268
                                                                              1.00
                                                                                      100.00
                                                                                              Α
MOTA
             8
                 Ν
                         ASP
                                 Α
                                         53
                                               62.993
                                                         94.840
                                                                    -4.563
                                                                              1.00
                                                                                       92.79
                                                                                              Α
```

ATOM	9	CA	ASP	Α	53	63.949	93.808	-4.175	1.00	92.79	Α
ATOM	10	CB	ASP								
				Α	53	63.826	92.579	-5.082	1.00	100.00	A
ATOM	11	CG	ASP	Α	53	62.415	92.033	-5.146	1.00	100.00	A
ATOM	12	OD1	ASP	Α	53	61.803	91.824	-4.076	1.00	100.00	Α
ATOM	13	OD2	ASP	Α	53	61,922	91.804	-6.272	1.00	100.00	Α
ATOM	14	С	ASP	Α	53	65.371	94.350	-4.275	1.00	92.79	Α
ATOM	15	0	ASP	Α	53	66.253	93.940	-3.524	1.00	92.79	Α
ATOM	16	Ň	LEU	A	54	65.583	95.272	-5.212	1.00	90.69	
ATOM	17	CA	LEU								A
				A	54	66.897	95.873	-5.431	1.00	90.69	A
ATOM	18	CB	LEU	Α	54	66.838	96.848	-6.613	1.00	88.23	Α
ATOM	19	CG	LEU	Α	54	68.176	97.443	-7.064	1.00	88.23	Α
ATOM	20	CD1	LEU	Α	54	68.957	96,396	-7.846	1.00	88.23	Α
ATOM	21	CD2	LEU	Α	54	67.941	98.675	-7.921	1.00	88.23	Α
ATOM	22	С	LEU	Α	54	67.411	96.615	-4.194	1.00	90.69	Α
ATOM	23	0	LEU	Α	54	68.528	96.371	-3.730	1.00	90.69	Ä
ATOM	24	Ň	ASP	A	55	66.589		-3.671			
							97.521		1.00	80.40	A
ATOM	25	CA	ASP	Α	55	66.947	98.317	-2.500	1.00	80.40	Α
ATOM	26	CB	ASP	Α	55	65.906	99.416	-2.276	1.00	100.00	Α
ATOM	27	CG	ASP	Α	55	65.890	100.436	-3.395	1.00	100.00	Α
ATOM	28	OD1	ASP	Α	55	65.600	100.054	-4.549	1.00	100.00	Α
ATOM	29	OD2	ASP	Α	55	66.173	101.620	-3.122	1.00	100.00	Α
ATOM	30	С	ASP	Α	55	67.095	97.481	-1.235	1.00	80.40	A
ATOM	31	ŏ	ASP	Ä	55	67.983	97.730	-0.412	1.00	80.40	Â
ATOM	32	N	HIS								
				Α	56	66.220	96,495	-1.074	1.00	63.87	Α
ATOM	33	CA	HIS	Α	56	66.289	95.630	0.092	1.00	63.87	Α
ATOM	34	CB	HIS	Α	56	65.074	94.707	0.141	1.00	66.67	Α
ATOM	35	CG	HIS	Α	56	64.965	93.927	1.412	1.00	66.67	Α
MOTA	36	CD2	HIS	Α	56	64.288	94.181	2.557	1.00	66.67	Α
ATOM	37	ND1	HIS	Α	56	65.634	92.740	1.618	1.00	66.67	Α
ATOM	38	CE1	HIS	Α	56	65.374	92.296	2.835	1.00	66.67	A
ATOM	39	NE2	HIS	Ä	56	64.560	93.152	3.426	1.00	66.67	Â
ATOM	40	C									
-			HIS	A	56	67.577	94.811	0.018	1.00	63.87	A
ATOM	41	0	HIS	Α	56	68.181	94.489	1.039	1.00	63.87	A
ATOM	42	N	LEU	Α	57	67.993	94.491	-1.205	1.00	53.08	Α
ATOM	43	CA	LEU	Α	57	69.211	93.728	-1.431	1.00	53.08	Α
MOTA	44	CB	LEU	Α	57	69.279	93.245	-2.881	1.00	67.42	Α
ATOM	45	CG	LEU	Α	57	70.536	92.450	-3.247	1.00	67.42	Α
ATOM	46	CD1	LEU	Α	57	70.614	91.187	-2.393	1.00	67,42	Α
ATOM ·	47	CD2	LEU	Α	57	70.507	92.099	-4.722	1.00	67.42	Â
ATOM	48	C	LEU	Ä	57	70.414	94.611	-1.128	1.00	53.08	
ATOM	49	ŏ	LEU	Â	57	71.384	94.170	-0.504			A
									1.00	53.08	Α
ATOM	50	N.	LYS	Α	58	70.347	95.859	-1.582	1.00	55.79	Α
ATOM	51	CA	LYS	Α	58	71.426	96.804	-1.339	1.00	55.79	Α
ATOM	52	CB	LYS	Α	58	71.071	98.179	-1.911	1.00	90.10	Α
ATOM	53	CG	LYS	Α	58	71.138	98.270	-3.426	1.00	90.10	Α
ATOM	54	CD	LYS	Α	58	70.691	99.645	-3.900	1.00	90.10	Α
ATOM	55	CE	LYS	Α	58	71.106	99.915	-5.342	1.00	90.10	A
ATOM	56	NZ	LYS	Ä	58	70.597	98.890	-6.292	1.00	90.10	Â
ATOM	57	C	LYS	Â	58	71.620	96.903	0.170	1.00		
ATOM	58									55.79	Ā
		0	LYS	A	58	72.739	97.066	0.659	1.00	55.79	A
ATOM	59	N	GLY	Α	59	70.514	96.789	0.900	1.00	49.26	Α
ATOM	60	CA	GLY	Α	59	70.570	96.861	2.343	1.00	49.26	Α
ATOM	61	С	GLY	Α	59	71.181	95.611	2.937	1.00	49.26	Α
ATOM	62	0	GLY	Α	59	71.838	95.680	3.969	1.00	49.26	Α
ATOM	63	N	ILE	Α	60	70.962	94.462	2.304	1.00	41.77	Α
ATOM	64	CA	ILE	A	60	71.521	93.218	2.812	1.00	41.77	A
ATOM	65	CB	ILE	Ä	60	70.879	91.986	2.124	1.00	45.06	Â
	-	~~				, 0.010	5500	4.147	1.50	70.00	$\sim$

WO 02/24722 PCT/IL01/00871

ATOM	66	CG2	ILE	Α	60	71.789	90.765	2.259	1.00	45.06	Α
ATOM	67	CG1	ILE	Ä	60	69.503	91.720	2.754	1.00	45.06	A
ATOM	68	CD1	ILE	A	60	68.737	90.577	2.134	1.00	45.06	Ä
ATOM	69	С	ILE	A	60	73.022	93,240	2.597	1.00	41.77	Α
ATOM	70	0	ILE	Α	60	73.790	92.697	3.401	1.00	41.77	Α
ATOM	71	N	LEU	Α	61	73.437	93.891	1.515	1.00	41.07	A
ATOM	72	CA	LEU	Α	61	74.854	94,022	1.215	1.00	41.07	Α
ATOM	73	CB	LEU	Α	61	75.054	94,693	-0.141	1.00	57.91	Α
ATOM	74	CG	LEU	Α	61	74.439	93.933	-1.313	1.00	57.91	Α
ATOM	75	CD1	LEU	Α	61	74.527	94.770	-2.571	1.00	57.91	Α
ATOM	76	CD2	LEU	Α	61	75.151	92,605	-1.482	1.00	57.91	Α
ATOM	77	С	LEU	Α	61	75.497	94.870	2.309	1.00	41,07	Α
ATOM	78	0	LEU	Α	61	76.710	94.810	2.516	1.00	41.07	Α
ATOM	79	N	ARG	Α	62	74.676	95.645	3.015	1.00	36.78	Α
ATOM	80	CA	ARG	Α	62	75,170	96.502	4.089	1.00	36.78	Α
ATOM	81	CB	ARG	Α	62	74.511	97.891	4.021	1.00	66,13	Α
ATOM	82	CG	ARG	Α	62	74.561	98.600	2.662	1.00	66.13	Α
ATOM	83	CD	ARG	Α	62	75.980	98.774	2,147	1.00	66.13	Α
ATOM	84	NE	ARG	Α	62	76.094	99.682	0.996	1.00	66.13	Α
ATOM	85	CZ	ARG	Α	62	75.475	99.532	-0.177	1.00	66.13	Α
ATOM	86	NH1	ARG	Α	62	74.663	98.505	-0.398	1.00	66.13	Α
ATOM	87	NH2	ARG	Α	62	75.693	100.407	-1,146	1.00	66.13	Α
ATOM	88	С	ARG	Α	62	74.951	95.912	5.490	1.00	36.78	Α
MOTA	89	0	ARG	Α	62	75.022	96.637	6.479	1.00	36.78	Α
ATOM	90	N	ARG	Α	63	74.680	94.610	5.582	1.00	40.59	Α
ATOM	91	CA	ARG	Α	63	74.467	93.975	6.889	1.00	40.59	Α
ATOM	92	CB	ARG	Α	63	73.892	92.558	6.732	1.00	57.49	Α
ATOM	93	CG	ARG	Α	63	72.488	92.476	6.154	1.00	57.49	Α
ATOM	94	CD	ARG	Α	63	71.481	93.211	7.009	1.00	57.49	Α
ATOM	95	NE	ARG	Α	63	70.148	93.208	6.412	1.00	57.49	Α
ATOM	96	CZ	ARG	Α	63	69.265	92.222	6.545	1.00	57.49	Α
ATOM	97	NH1	ARG	Α	63	69.563	91.142	7.260	1.00	57.49	Α
ATOM	98	NH2	ARG	Α	63	68.075	92.322	5.968	1.00	57.49	Α
ATOM	99	С	ARG	Α	63	75.777	93.891	7.680	1.00	40.59	Α
ATOM	100	0	ARG	Α	63	76.828	93.549	7.128	1.00	40.59	Α
ATOM	101	N	ARG	Α	64	75.706	94.184	8.976	1.00	38.46	Α
ATOM	102	CA	ARG	Α	64	76.886	94.149	9.825	1.00	38.46	Α
ATOM	103	CB	ARG	Α	64	77.596	95.506	9.787	1.00	37.19	Α
ATOM	104	CG	ARG	A	64	77.879	96.081	8.411	1.00	37.19	Α
ATOM	105	CD	ARG	Α	64	79.195	95.593	7.846	1.00	37.19	Α
ATOM	106	NE	ARG	Α	64	79.497	96.230	6.567	1.00	37.19	Α
ATOM	107	CZ	ARG	Α	64	78.937	95.896	5.405	1.00	37.19	A٠
ATOM	108	NH1	ARG	Α	64	78.039	94.918	5.351	1.00	37.19	Α
ATOM	109	NH2	ARG	Α	64	79.272	96.546	4.291	1.00	37.19	Α
ATOM	110	С	ARG	A	64	76.551	93.851	11.284	1.00	38.46	Α
MOTA	111	0	ARG	A	64	75.391	93.802	11.689	1.00	38.46	A
ATOM	112	N	GLN	Ą	65	77.603	93.645	12.063	1.00	37.51	A
ATOM	113	CA	GLN	A	65	77.509	93.439	13.497	1.00	37.51	A
MOTA	114	CB	GLN	A	65	77.958	92.040	13.900	1.00	38.80	A
MOTA	115	CG	GLN	A	65	77.133	90.900	13.350	1.00	38.80	A
MOTA	116	CD	GLN	A	65 05	77.536	89.564	13.965	1.00	38.80	A
MOTA	117	OE1	GLN	A	65 65	77.282	89.313	15.148	1.00	38.80	A
MOTA	118 119	NE2	GLN	A	65 65	78.180	88.709	13.168	1.00	38.80	A
ATOM ATOM	120	C	GLN	A	65 65	78.546	94.453	13.989	1.00	37.51	A
ATOM	120	· O N	GLN LEU	A	65 66	79.556	94.680	13.313	1.00	· 37.51	A
ATOM	122	CA		A	66 66	78.286	95.087	15.129	1.00	35.76	A
ATOM	122	CA	LEU	Α	90	79.223	96.060	15.690	1.00	35.76	Α

ATOM	123	СВ	LEU	Α	66	78,543	97.380	16.042	1.00	36.00	Α
ATOM	124	CG	LEU	Ä	66	78.720	98.549	15.082	1.00	36.00	A
ATOM	125	CD1	LEU	A	66	78.392	99.829	15.846	1.00	36.00	A
ATOM	126	CD2	LEŲ	Α	66	80.139	98.613	14.542	1.00	36.00	Â
ATOM	127	С	LEU	Α	66	79.844	95.496	16.941	1.00	35.76	A
ATOM	128	0	LEU	Α	66	79.228	95.474	18.009	1.00	35.76	A
ATOM	129	N	TYR	Α	67	81.077	95.044	16.795	1.00	35.94	Ä
ATOM	130	CA	TYR	A	67	81.812	94.458	17.894	1.00	35.94	Â
ATOM	131	СВ	TYR	Α	67	82.755	93.388	17.348	1.00	35.96	A
MOTA	132	CG	TYR	Α	67	83.622	92.763	18.401	1.00	35.96	Ä
MOTA	133	CD1	TYR	Α	67	83.070	91.942	19.386	1.00	35.96	A
ATOM	134	CE1	TYR	Α	67	83.857	91.388	20.371	1.00	35.96	Α
ATOM	135	CD2	TYR	Α	67	84.995	93.015	18.433	1.00	35.96	Α
ATOM	136	CE2	TYR	Α	67	85.798	92.466	19.420	1.00	35.96	Α
MOTA	137	CZ	TYR	Α	67	85.222	91.649	20.386	1.00	35.96	Α
ATOM	138	ОН	TYR	Α	67	86.014	91.068	21.350	1.00	35.96	Α
ATOM	139	С	TYR	Α	67	82.602	95.527	18.645	1.00	35.94	Α
ATOM	140	0	TYR	Α	67	83.447	96.220	18.073	1.00	35.94	Α
MOTA	141	N	CYS	Α	68	82.319	95.671	19.931	1.00	36.87	Α
MOTA	142	CA	CYS	Α	68	83.032	96.650	20.731	1.00	36.87	Α
ATOM	143	CB	CYS	Α	68	82.143	97.185	21.859	1.00	39.17	Α
ATOM	144	SG	CYS	Α	68	82.931	98.454	22.876	1.00	39.17	Α
ATOM	145	С	CYS	Α	68	84.277	96.012	21.325	1.00	36.87	Α
ATOM	146	0	CYS	Α	68	84.257	94.847	21.726	1.00	36.87	Α
MOTA	147	N	ARG	Α	69	85.354	96.791	21.376	1.00	38.81	Α
ATOM	148	CA	ARG	Α	69	86.632	96.343	21.918	1.00	38.81	Α
ATOM	149	CB	ARG	Α	69	87.575	97.541	22.062	1.00	84.60	Α
ATOM	150	CG	ARG	Α	69	89.025	97.200	22.369	1.00	84.60	Α
ATOM	151	CD	ARG	Α	69	89.867	97.018	21.112	1.00	84.60	Α
ATOM	152	NE	ARG	Α	69	90.140	95.610	20.826	1.00	84.60	Α
ATOM	153	CZ	ARG	Α	69	90.956	95.178	19.866	1.00	84.60	Α
ATOM	154	NH1	ARG	A	69	91.591	96.043	19.083	1.00	84.60	Α
ATOM ATOM	155	NH2	ARG	Α	69	91.143	93.874	19.691	1.00	84.60	Α
ATOM	156 157	C	ARG	A	69	86.463	95.638	23.270	1.00	38.81	Α
ATOM	158	O N	ARG	Α	69 70	87.255	94.764	23.617	1.00	38.81	Α
ATOM	159	CA	THR THR	Α	70	85.434	95.999	24.032	1.00	39.56	A
ATOM	160	CB	THR	A A	70 70	85.217	95.367	25.333	1.00	39.56	A
ATOM	161	OG1	THR		70 70	84.213	96.149	26.197	1.00	38.85	Α
ATOM	162	CG2	THR	A A	70 70	82.985 84.806	96.325	25.472	1.00	38.85	A
ATOM	163	C	THR	Â	70 70	84.718	97.499 93.937	26.604	1.00	38.85	A
ATOM	164	ŏ	THR	Â	70 70	84.504	93.286	25.236 26.254	1.00	39.56	A
ATOM	165	Ň	GLY	Ä	70 71	84.519	93.455	24.014	1.00 1.00	39.56	A
ATOM	166	CA	GLY	Â	71	84.059	92.092	23.828	1.00	39.63 39.63	A
ATOM	167	Ċ.	GLY	Â	71	82.583	91.904	23.522	1.00	39.63 39.63	A
ATOM	168	ŏ	GLY	Ä	71	82.109	90.770	23.480	1.00	39.63	A
ATOM	169	Ň	PHE	Â	72	81.854	92.988	23.400	1.00	35.62	A
ATOM	170	CA	PHE	Ä	72	80.430	92.854	23.009	1.00	35.62	A
ATOM	171	СВ	PHE	Ä	72	79.618	93.513	24.131	1.00	36.28	A
ATOM	172	CG	PHE	Ä	72	79.950	93.009	25.507	1.00	36.28	Â
ATOM	173	CD1	PHE	Α	72	81.047	93.519	26.207	1.00	36.28	Ä
ATOM	174	CD2	PHE	Ä	72	79.171	92.018	26.105	1.00	36.28	Â
ATOM	175	CE1	PHE	A	72	81.362	93.050	27.494	1.00	36.28	Â
ATOM	176	CE2	PHE	A	72	79.471	91.537	27.390	1.00	36.28	A
ATOM	177	CZ	PHE	Α	72	80.570	92.052	28.087	1.00	36.28	Â
ATOM	178	С	PHE	Α	72	79.928	93.398	21.682	1.00	35.62	A
MOTA	179	0	PHE	Α	72	80.457	94.363	21.144	1.00	35.62	Ä

WO 02/24722 PCT/IL01/00871

ATOM	180	N	HIS	Α	73	78.886	92,764	21.158	1.00	33.67	Α
ATOM	181	CA	HIS	A	73	78.274	93.213	19.918	1.00	33.67	A
ATOM	182	CB	HIS	Α	73	77.775	92.037	19.073	1.00	40.05	Α
ATOM	183	CG	HIS	Α	73	78.866	91.242	18.432	1.00	40.05	Α
ATOM	184	CD2	HIS	Α	73	79.525	91.415	17.261	1.00	40.05	Α
ATOM	185	ND1	HIS	Α	73	79.401	90.110	19.008	1.00	40.05	Α
ATOM	186	CE1	HIS	A	73	80.340	89.618	18.220	1.00	40.05	A
MOTA	187	NE2	HIS	Α	73	80.436	90.390	17.152	1.00	40.05	Α
ATOM ATOM	188 189	C	HIS HIS	A	73	77.093	94.061	20.338	1.00	33.67	Α
ATOM	190	N	LEU	A	73 74	76.386 76.877	93.724 95.157	21.293 19.621	1.00 1.00	33.67 33.41	A
ATOM	191	CA	LEU	Â	74	75.773	96.057	19.923	1.00	33.41	A A
ATOM	192	CB	LEU	Â	74	75.961	97.379	19.172	1.00	43.56	Â
ATOM	193	CG	LEU	Ä	74	75.037	98.526	19.589	1.00	43.56	Â
ATOM	194	CD1	LEU	A	74	75.582	99.142	20.841	1.00	43.56	A
ATOM	195	CD2	LEU	Α	74	74.971	99.582	18.510	1.00	43.56	A
ATOM	196	С	LEU	Α	74	74.411	95.454	19.552	1.00	33.41	Α
ATOM	197	0	LEU	Α	74	74.210	94.973	18.436	1.00	33.41	Α
ATOM	198	N	GLU	Α	75	73.476	95.496	20.493	1.00	35.72	Α
ATOM	199	CA	GLU	Α	75	72.131	94.981	20.268	1.00	35.72	Α
ATOM	200	CB	GLU	A	75	71.783	93.910	21.302	1.00	45.77	Α
MOTA	201	CG	GLU	Α	75	72.607	92.658	21.221	1.00	45.77	Α
ATOM ATOM	202 203	CD OE1	GLU GLU	A	75 75	72.372	91.752	22.403	1.00	45.77	A
ATOM	203	OE2	GLU	A A	75 75	72.686	92.158	23.541	1.00	45.77	A
ATOM	205	C	GLU	Ä	75 75	71.868 71.098	90.630 96.094	22.199 20.375	1.00 1.00	45.77	A
ATOM	206	ŏ	GLU	Â	75	71.121	96.895	21.312	1.00	35.72 35.72	A A
ATOM	207	Ň	ILE	Ä	76	70.188	96.137	19.411	1.00	35.50	Â
ATOM	208	CA	ILE	Α	76	69.114	97.119	19.409	1.00	35.50	A
ATOM	209	CB	ILE	Α	76	69.074	97.892	18.087	1.00	29.67	Ä
ATOM	210	CG2	ILE	Α	76	67.936	98.899	18.119	1.00	29.67	A
ATOM	211	CG1	ILE	Α	76	70.415	98.584	17.844	1.00	29.67	Α
ATOM	212	CD1	ILE	Α	76	70.513	99.261	16.489	1.00	29.67	Α
ATOM	213	C	ILE	Α	76	67.815	96.320	19.576	1.00	35.50	Α
ATOM	214	0	ILE	A	76	67.299	95.727	18.619	1.00	35.50	Α
ATOM ATOM	215 216	N CA	PHE	A	77 77	67.297	96.298	20.800	1.00	38.63	A
ATOM	217	CB	PHE	A A	77 77	66.081	95.552	21.109	1.00	38.63	A
ATOM	218	CG	PHE	Â	77 77	66.041 67.023	95.241 94.195	22.604 23.022	1.00	45.88	A
ATOM	219	CD1	PHE	Â	77	66.796	92.855	22.734	1.00 1.00	45.88 45.88	A A
ATOM	220	CD2	PHE	Ä	.77	68.198	94.547	23.671	1.00	45.88	Â
ATOM	221	CE1	PHE	Α	77	67.736	91.878	23.089	1.00	45.88	Â
ATOM	222	CE2	PHE	Α	77	69.135	93.576	24.025	1.00	45.88	Â
ATOM	223	CZ ·	PHE	Α	77	68.900	92.240	23.730	1.00	45.88	A
MOTA	224	C	PHE	Α	77	64.778	96.222	20.690	1.00	38.63	Α
ATOM	225	0	PHE	Α	77	64.693	97.451	20.575	1.00	38.63	Α
ATOM	226	N	PRO	Α	78	63.734	95.411	20.463	1.00	51.93	Α
ATOM	227	CD	PRO	A	78	63.715	93.942	20.576	1.00	44.46	Α
ATOM ATOM	228 229	CA CB	PRO	A	78 79	62.421	95.926	20.055	1.00	51.93	À
ATOM	230	CG	PRO PRO	A A	78 78	61.557 62.561	94.669	19.992	1.00	44.46	À
ATOM	231	C	PRO	Ā	78	61.873	93.576 96.958	19.683 21.040	1.00 1.00	44.46	A
ATOM	232	ŏ	PRO	Â	78	61.151	97.869	20.640	1.00	51.93 51.93	A
ATOM	233	Ň	ASN	Â	79	62.210	96.822	22.324	1.00	45.34	A A
ATOM	234	CA	ASN	Ä	79	61.725	97.791	23.298	1.00	45.34	Â
ATOM	235	CB	ASN	Ä	79	61.605	97.187	24.702	1.00	48.61	Â
MOTA	236	CG	ASN	Α	79	62.896	96.597	25.218	1.00	48.61	A

### WO 02/24722

# FIGURE 2 Continued

# PCT/IL01/00871

ATOM	237	OD1	ASN	Α	79	63.992	97.057	24,900	1.00	48.61 A	
ATOM	238	ND2	ASN	Α	79	62.732	95.578	26.057	1.00	48.61 A	
ATOM	239	С	ASN	Α	79	62,519	99.092	23.373	1.00	45.34 A	
MOTA	240	0	ASN	Α	79	62.285	99.905	24.265	1.00	45.34 A	
ATOM	241	N	GLY	Α	80	63.448	99.296	22.440	1.00	37.82 A	
ATOM	242	CA	GLY	Α	80	64.205	100.539	22.422	1.00	37.82 A	
MOTA	243	С	GLY	Α	80	65.462	100.531	23.261	1.00	37.82 A	
ATOM	244	0	GLY	Α	80	66.243	101.484	23.249	1.00	37.82 A	
ATOM	245	N	THR	Α	81	65.648	99.445	23.996	1.00	41.20 A	
MOTA	246	CA	THR	Α	81	66.808	99.263	24.851	1.00	41.20 A	
MOTA	247	CB	THR	Α	81	66.494	98.178	25.909	1.00	52.59 A	
MOTA	248	OG1	THR	Α	81	65.862	98.805	27.035	1.00	52.59 A	
MOTA	249	CG2	THR	Α	81	67.747	97.431	26.351	1.00	52.59 A	
ATOM	250	С	THR	Α	81	68.045	98.892	24.026	1.00	41.20 A	
ATOM	251	0	THR	Α	81	67.939	98.285	22.954	1.00	41.20 A	
MOTA	252	N	ILE	Α	82	69.214	99.292	24.515	1.00	48.38 A	
ATOM	253	CA	ILE	Α	82	70.471	99.000	23.843	1.00	48.38 A	
MOTA	254	CB	ILE	Α	82	71.226	100.285	23.488	1.00	35.38 A	
ATOM	255	CG2	ILE	Α	82	72.571	99.939	22.852	1.00	35.38 A	
ATOM	256	CG1	ILE	Α	82	70.371	101.154	22.565	1.00	35.38 A	
ATOM	257	CD1	ILE	Α	82	70.012	100.498	21.256	1.00	35.38 A	
ATOM	258	С	ILE	Α	82	71.307	98.189	24.819	1.00	48.38 A	
ATOM	259	0	ILE	Α	82	71.405	98.530	26,001	1.00	48.38 A	
ATOM	260	N	GLN	Α	83	71.917	97.118	24.329	1.00	52.04 A	
ATOM	261	CA	GLN	Α	· 83	72.709	96.252	25.190	1.00	52.04 A	
ATOM	262	CB	GLN	Α	83	71.803	95.161	25.761	1.00	80.70 A	
MOTA	263	CG	GLN	Α	83	72.254	94.568	27.073	1.00	80.70 A	
ATOM	264	CD	GLN	Α	83	71.400	93.376	27.485	1.00	80.70 A	
ATOM	265	OE1	GLN	Α	83	70.179	93.369	27.296	1.00	80.70 A	
ATOM	266	NE2	GLN	A	83	72.040	92.366	28.064	1.00	80.70 A	
ATOM	267	C	GLN	A	83	73.833	95.616	24.383	1.00	52.04 A	
ATOM ATOM	268	0	GLN	A	83	73.867	95.728	23.156	1.00	52.04 A	
ATOM	269 270	N CA	GLY	A	84	74.750	94.949	25.073	1.00	38.67 A	
ATOM	271	CA	GLY GLY	A	84	75.844	94.302	24.385	1.00	38.67 A	
ATOM	272	Ö	GLY	A	84	75.796 75.204	92.805	24.623	1.00	38.67 A	
ATOM	273	N	THR	A	84 95	75.304	92.364	25.664	1.00	38.67 A	
ATOM	274	CA	THR	A	85 85	76.290	92.025	23.659	. 1.00	40.58 A	
ATOM	275	CB	THR	A	85 85	76.321	90.568	23.786	1.00	40.58 A	
ATOM	276	0G1	THR	A A	85 85	75.135	89.868	23.079	1.00	33.27 A	
ATOM	277	CG2	THR	Â	85	75.306 75.099	88.451 90.207	23.194	1.00	33.27 A	
ATOM	278	C	THR	Ā	85	77.587	90.207 89.978	21.600	1.00	33.27 A	
ATOM	279	ŏ	THR	Â	85	78.081	90.432	23,190 22,151	1.00	40.58 A	
ATOM	280	Ň	ARG	Â	86	78.099	88.951	23.855	1.00 1.00	40.58 A	
ATOM	281	CA	ARG	Â	86	79.298	88.273	23.397	1.00	40.42 A 40.42 A	
ATOM	282	СВ	ARG	Â	86	79.932	87.503	24.556	1.00		
ATOM	283	CG	ARG	Â	86	80.523	88.407	25.615	1.00		
ATOM	284	CD	ARG	Â	86	81.144	87.617	26.756	1.00		
ATOM	285	NE	ARG	Ä	86	81.950	88.468	27.632	1.00	70.68 A 70.68 A	
ATOM	286	CZ	ARG	Ä	86	83.042	89.129	27.244	1.00	70.68 A	
ATOM	287	NH1	ARG	Ä	86	83.467	89.039	25.987	1.00	70.68 A	
ATOM	288	NH2	ARG	Ä	86	83.715	89.880	28.111	1.00	70.68 A	
ATOM	289	C	ARG	Ä	86	78.985	87.327	22.232	1.00	40.42 A	
ATOM	290	0	ARG	A	86	79.860	87.004	21.436	1.00	40.42 A	
ATOM	291	N	LYS	A	87	77.726	86.915	22.118	1.00	42.09 A	
ATOM	292	CA	LYS	Α	87	77.316	85.990	21.065	1.00	42.09 A	
MOTA	293	СВ	LYS	Α	87	75.871	85.541	21.301	1.00	79.48 A	

WO 02/24722 PCT/IL01/00871

ATOM	294	CG	LYS	Α	87	75.595	85.082	22.728	1.00	79.48	Α
ATOM	295	CD	LYS	Α	87	76.401	83.843	23.133	1.00	79.48	Α
ATOM	296	CE	LYS	Α	87	75.866	82.573	22.474	1.00	79.48	Α
ATOM	297	NZ	LYS	Â	87	76.588	81.349				
								22.918	1.00	79.48	A
ATOM	298	C	LYS	Α	87	77.456	86.563	19.651	1.00	42.09	Α
ATOM	299	0	LYS	Α	87	77.157	87.733	19.402	1.00	42.09	Α
ATOM	300	N	ASP	Α	88	77.924	85.727	18.728	1.00	33,81	Α
ATOM	301	CA	ASP	Α	88	78.084	86.131	17.339	1.00	33.81	Α
ATOM	302	СВ	ASP	A	88	79.134	85.251	16.652	1.00	40.10	Â
ATOM	303	CG	ASP								
				A	88	79.427	85.688	15.228	1.00	40.10	A
ATOM	304	OD1	ASP	Α	88	79.168	86.859	14.884	1.00	40.10	Α
ATOM	305	OD2	ASP	Α	88	79.934	84.864	14.446	1.00	40.10	Α
ATOM	306	С	ASP	Α	88	76.726	85.965	16.678	1.00	33.81	Α
ATOM	307	0	ASP	Α	88	75.917	85.154	17.121	1.00	33.81	Α
ATOM	308	N	HIS	Α	89	76.465	86.750	15,641	1.00	37.93	Α
ATOM	309	CA	HIS	Α	89	75.197	86.678	14.924	1.00	37.93	Ä
ATOM	310	СВ	HIS	A	89	75.188	85.472	13.974	1.00		
ATOM	311	CG	HIS	A	89					49.61	A
						76.040	85.648	12.753	1.00	49.61	Α
ATOM	312	CD2	HIS	Α	89	75.749	86.154	11.528	1.00	49.61	Α
ATOM	313	ND1	HIS	Α	89	77.366	85.271	12.704	1.00	49.61	Α
ATOM	314	CE1	HIS	Α	89	77.852	85.534	11.502	1.00	49.61	Α
ATOM	315	NE2	HIS	Α	89	76.891	86.070	10.769	1.00	49.61	Α
ATOM	316	С	HIS	Α	89	73.949	86.625	15.821	1.00	37.93	A
ATOM	317	0	HIS	Α	89	72.981	85.930	15.505	1.00	37.93	Ä
ATOM	318	Ň	SER	A	90	73.962	87.357	16.932	1.00	38.43	
ATOM	319	CA	SER	A	90	72.804					A
ATOM	320	CB					87.383	17.821	1.00	38.43	A
			SER	A	90	73.128	88.155	19.100	1.00	59.03	Α
ATOM	321	og	SER	Α	90	73.433	89.506	18.806	1.00	59.03	Α
ATOM	322	C	SER	Α	90	71.635	88.054	17.083	1.00	38.43	Α
MOTA	323	0	SER	Α	90	71.833	88.940	16.255	1.00	38.43	Α
ATOM	324	N	ARG	Α	91	70.421	87.625	17.400	1.00	39.55	Α
ATOM	325	CA	ARG	Α	91	69.217	88.135	16.760	1.00	39.55	A
ATOM	326	CB	ARG	Α	91	67.986	87,582	17.487	1.00	62.11	Â
ATOM	327	CG	ARG	A	91	66.648	88.005	16.898	1.00	62.11	Ä
ATOM	328	CD	ARG	Â	91	65.487	87.392				
ATOM	329	NE	ARG	A				17.666	1.00	62.11	A
ATOM					91	64.208	87.973	17.262	1.00	62.11	Α
	330	CZ	ARG	Α	91	63.080	87.875	17.964	1.00	62.11	Α
ATOM	331	NH1	ARG	Α	91	63.062	87.210	19.114	1.00	62.11	Α
ATOM	332	NH2	ARG	Α	91	61.973	88.465	17.528	1.00	62.11	Α
ATOM	333	С	ARG	Α	91	69.127	89.652	16.694	1.00	39.55	Α
MOTA	334	0	ARG	Α	91	68.736	90.227	15.673	1.00	39.55	Α
ATOM	335	N	PHE	Α	92	69.486	90.311	17.785	1.00	37.77	A
ATOM	336	CA	PHE	Ä	92	69.380	91.753	17.817	1.00	37.77	
ATOM	337	СВ	PHE	Â	92	68.732	92.149	19.133			A
ATOM	338	CG							1.00		A
			PHE	A	92	67.344	91.613	19.276	1.00		Α
ATOM	339	CD1	PHE	A	92	66.322	92.078	18.441	1.00		Α
ATOM	340	CD2	PHE	Α	92	67.056	90.611	20.204	1.00	39.75	Α
ATOM	341	CE1	PHE	Α	92	65.033	91.551	18.527	1.00	39.75	Α
ATOM	342	CE2	PHE	Α	92	65,770	90.077	20.298	1.00		Α
ATOM	343	CZ	PHE	Α	92	64.756	90.550	19.456	1.00		A
ATOM	344	С	PHE	Α	92	70.676	92.502	17.577	1.00		Â
ATOM	345	Ŏ	PHE	Ä	92	70.695	93.728	17.569	1.00		Â
ATOM	346	Ň	GLY	Â	93	71.748	91.747				
ATOM	347	CA	GLY		93			17.358	1.00		A
ATOM				A		73.042	92.335	17.084	1.00		A
	348	C	GLY	A	93	73.276	92.459	15.587	1.00		Α
MOTA	349	0	GLY	A	93	74.302	92.996	15.158	1.00		Α
ATOM	350	N	ILE	Α	94	72.337	91.958	14.784	1.00	32.21	Α

PCT/IL01/00871

### WO 02/24722

ATOM	351	CA	ILE	Α	94	72.472	92.053	13.342	1.00	32.21	Α
ATOM	352	CB	ILE	Ä	94	71.706	90.905	12.633	1.00	31.38	A
ATOM	353	CG2	ILE	Ä	94	71.667	91.141	11.107	1.00	31.38	A
ATOM	354	CG1	ILE	Â	94	72.414	89.581	12.958	1.00	31.38	A
ATOM	355	CD1	ILE	Â	94	71.877	88.372	12.262	1.00	31.38	A
ATOM	356	Č.	ILE	Â	94	71.962	93.431	12.202	1.00	32.21	
ATOM	357	ŏ	ILE	Â	94	70.797	93.771	13.147		32.21	A
ATOM	358	N	LEU	Â		72.854			1.00		A
ATOM	359	CA	LEU	Â	95 05		94.224	12.351	1.00	35.55	A
ATOM	360	CB	LEU	Ä	95 95	72.535	95.596	11.982	1.00	35.55	Α
ATOM	361	CG	LEU			73.436	96.543	12.790	1.00	30.56	À
ATOM	362	CD1	LEU	A	95 05	73.724	96.086	14.230	1.00	30.56	Α
ATOM	363	CD2		A	95	74.864	96.922	14.819	1.00	30.56	A
ATOM	364		LEU	A	95 05	72.451	96.186	15.089	1.00	30.56	A
ATOM		C	LEU	A	95	72.671	95.920	10.502	1.00	35.55	Α
	365	0	LEU	A	95	73.285	95.179	9.733	1.00	35.55	A
ATOM ATOM	366	N	GLU	A	96	72.094	97.050	10.116	1.00	41.25	Ą
	367	CA	GLU	A	96	72.139	97.510	8.739	1.00	41.25	Α
MOTA	368	CB	GLU	A	96	70.729	97.687	8.173	1.00	51.47	Α
ATOM	369	CG	GLU	A	96	70.713	97.871	6.669	1.00	51.47	Α
ATOM	370	CD	GLU	Α	96	69.514	98.653	6.172	1.00	51.47	Α
ATOM	371	OE1	GLU	A	96	68.391	98.423	6.670	1.00	51.47	Α
ATOM	372	OE2	GLU	Α	96	69.690	99.497	5.269	1.00	51.47	Α
ATOM	373	C	GLU	A	96	72.827	98.860	8.751	1.00	41.25	Α
ATOM	374	0	GLU	Α	96	72.385	99.772	9.453	1.00	41.25	Α
ATOM	375	N	PHE	Α	97	73.913	98.991	7.995	1.00	39.56	Α
MOTA	376	CA	PHE	Α	97	74.609	100.267	7.948	1.00	39.56	Α
ATOM	377	СВ	PHE	Α	97	76.115	100.063	7.831	1.00	37.09	Α
ATOM	378	CG	PHE	Α	97	76.810	99.968	9.157	1.00	37.09	Α
ATOM	379	CD1	PHE	Α	97	76.422	99.012	10.100	1.00	37.09	Α
ATOM	380	CD2	PHE	Α	97	77.850	100.838	9.471	1.00	37.09	Α
ATOM	381	CE1	PHE	Α	97	77.064	98.921	11.338	1.00	37.09	Α
ATOM	382	CE2	PHE	Α	97	78.505	100.759	10.710	1.00	37.09	Α
ATOM	383	CZ	PHE	Α	97	78.109	99.797	11.646	1.00	37.09	Α
ATOM	384	C	PHE	Α	97	74.101	101.133	6.808	1.00	39.56	Α
ATOM	385	0	PHE	A	97	73.987	100.687	5.667	1.00	39.56	Α
ATOM	386	N	ILE	Α	98	73.787	102.379	7.133	1.00	45.56	Α
ATOM	387	CA	ILE	Α	98	73.279	103.309	6.147	1.00	45.56	Α
ATOM	388	CB	ILE	Α	98	71.864	103.776	6.529	1.00	42.37	Α
ATOM	389	CG2	ILE	Α	98	71.379	104.819	5.543	1.00	42.37	Α
ATOM	390	CG1	ILE	Α	98	70.925	102.565	6.564	1.00	42.37	Α
MOTA	391	CD1	ILE	A	98	69.815	102.675	7.576	1.00	42.37	Α
MOTA	392	C	ILE	Α	98	74.197	104.510	6.042	1.00	45.56	Α
ATOM	393	0	ILE	Ą	98	74.421	105.219	7.020	1.00	45.56	Α
ATOM	394	N	SER	Ą	99	74.738	104.726	4.853	1.00	39.32	Α
ATOM	395	CA	SER	Α	99	75.622	105.848	4.607	1.00	39.32	Α
ATOM	396	СВ	SER	Α	99	76.440	105.597	3.342	1.00	55.24	Α
ATOM	397	OG	SER	Α	99	77.208	106.737	2.999	1.00	55.24	Α
ATOM	398	C	SER	Α	99	74.770	107.104	4.436	1.00	39.32	Α
ATOM	399	0	SER	Α	99	73.955	107.188	3.514	1.00	39.32	Α
ATOM	400	N	ILE	Α	100	74.949	108.071	5.332	1.00	49.40	Α
ATOM	401	CA	ILE	Α	100	74.188	109.315	5.264	1.00	49.40	Α
ATOM	402	CB	ILE	Α	100	73.907	109.865	6.685	1.00	40.10	Α
ATOM	403	CG2	ILE	Α	100	73.193	111.209	6.595	1.00	40.10	Α
ATOM	404	CG1	ILE	Α	100	73.068	108.857	7.480	1.00	40.10	Α
ATOM	405	CD1	ILE	Α	100	71.660	108.634	6.933	1.00	40.10	Α
ATOM	406	C	ILE	Α	100	74.934	110.374	4.441	1.00	49.40	Α
ATOM	407	0	ILE	Α	100	74.324	111.168	3.723	1.00	49.40	Α

PCT/IL01/00871

### WO 02/24722

ATOM	408	N	ALA	Α	101	76.258	110.369	4.552	1.00	45.08	Α
ATOM	409	CA	ALA	Α	101	77.112	111.305	3.832	1.00	45.08	Α
ATOM	410	CB	ALA	Α	101	76.842	112,739	4.295	1.00	35.21	Α
ATOM	411	C	ALA	Α	101	78.545	110.907	4.140	1.00	45.08	Α
ATOM	412	0	ALA	Α	101	78.770	109.913	4.822	1.00	45.08	A
ATOM	413	N	VAL	Α	102	79.518	111.663	3.649	1.00	46.06	A
ATOM	414	CA	VAL	Α	102	80.907	111.317	3.923	1.00	46.06	A
ATOM	415	СВ	VAL	Ä	102	81.895	112.255	3.178	1.00	47.26	Â
ATOM	416	CG1	VAL	A	102	83.329	111.816	3.452	1.00	47.26	
ATOM	417	CG2	VAL	A	102	81.612	112.237	1.676	1.00	47.26	A
ATOM	418	C	VAL	Ä	102	81.205	111.397	5.421			A
ATOM	419	ŏ	VAL	Â	102				1.00	46.06	A
ATOM	420	N	GLY	Â		81.063	112.456	6.035	1.00	46.06	A
ATOM	421	CA	GLY		103	81.610	110.268	6.000	1.00	36.05	A
				A	103	81.938	110.219	7.414	1.00	36.05	A
MOTA	422	C	GLY	A	103	80.764	110.052	8.359	1.00	36.05	Α
MOTA	423	0	GLY	A	103	80.955	110.004	9.571	1.00	36.05	Α
ATOM	424	N	LEU	A	104	79.550	109.963	7.827	1.00	42.00	Α
ATOM	425	CA	LEU	A	104	78.367	109.816	8.675	1.00	42.00	A
ATOM	426	СВ	LEU	Α	104	77.425	111.019	8.526	1.00	39.82	Α
ATOM	427	CG	LEU	Α	104	77.926	112.428	8.858	1.00	39.82	Α
ATOM	428	CD1	LEU	Α	104	76.782	113.414	8.649	1.00	39.82	Α
ATOM	429	CD2	LEU	Α	104	78.435	112.492	10.297	1.00	39.82	Α
ATOM	430	C	LEU	Α	104	77.589	108.562	8.334	1.00	42.00	Α
ATOM	431	0	LEU	Α	104	77.488	108.168	7.170	1.00	42.00	Α
MOTA	432	N	VAL	Α	105	77.018	107.939	9.352	1.00	39.38	Α
ATOM	433	CA	VAL	Α	105	76.251	106.740	9.116	1.00	39.38	Α
ATOM	434	CB	.VAL	Α	105	77.105	105.476	9.327	1.00	33.62	Α
ATOM	435	CG1	VAL	Α	105	78.323	105.503	8.416	1.00	33.62	Α
ATOM	436	CG2	VAL	Α	105	77.531	105.393	10.793	1.00	33.62	Α
MOTA	437	С	VAL	Α	105	75.072	106.645	10.055	1.00	39.38	Α
ATOM	438	0	VAL	Α	105	74.956	107.392	11.032	1.00	39.38	Α
ATOM	439	N	SER	Α	106	74.190	105.713	9.728	1.00	38.61	Α
ATOM	440	CA	SER	Α	106	73.029	105.416	10.539	1.00	38.61	Α
ATOM	441	CB	SER	. A	106	71.750	105.863	9.845	1.00	57.92	Α
ATOM	442	OG	SER	Α	106	71.640	107.272	9.908	1.00	57.92	Α
ATOM	443	С	SER	Α	106	73.076	103.901	10.703	1.00	38.61	Α
ATOM	444	0	SER	Α	106	73.497	103.182	9.805	1.00	38.61	Α
ATOM	445	N	ILE	Α	107	72.660	103.428	11.863	1.00	37.16	Α
ATOM	446	CA	ILE	Α	107	72.693	102.018	12.159	1.00	37.16	Α
ATOM	447	CB	ILE	Α	107	73.662	101.759	13.323	1.00	29.59	Α
ATOM	448	CG2	ILE	Α	107	73.694	100.285	13.658	1.00	29.59	Α
ATOM	449	CG1	ILE	Α	107	75.054	102.280	12.939	1.00	29.59	Α
MOTA	450	CD1	ILE	Α	107	76.061	102.269	14.068	1.00	29.59	Α
ATOM	451	С	ILE	Α	107	71.304	101,535	12.521	1.00	37.16	Α
ATOM	452	0	ILE	Α	107	70.704	102.012	13.478	1.00	37.16	Α
ATOM	453	N	ARG	Α	108	70.807	100.570	11.755	1.00	46.61	Α
ATOM	454	CA	ARG	Α	108	69.485	100.029	11.989	1.00	46.61	Α
ATOM	455	CB	ARG	Α	108	68.654	100,169	10.725	1.00	57.86	Α
ATOM	456	CG	ARG	Α	108	67.182	100.039	10.982	1.00	57.86	Α
ATOM	457	CD	ARG	Α	108	66.395	100.077	9.706	1.00	57.86	Α
ATOM	458	NE	ARG	Α	108	64.978	100.261	9.982	1.00	57.86	A
ATOM	459	CZ	ARG	Α	108	64.012	100.019	9.104	1.00	57.86	Ä
ATOM	460	NH1	ARG	Α	108	64.317	99.575	7.890	1.00	57.86	Α
ATOM	461	NH2	ARG	Α	108	62.745	100.230	9.437	1.00	57.86	A
MOTA	462	С	ARG	Α	108	69.484	98.564	12.434	1.00	46.61	Α
ATOM	463	0	ARG	Α	108	70.154	97.722	11.836	1.00	46.61	Α
ATOM	464	N	GLY	Α	109	68.736	98.269	13.498	1.00	40.40	A

ATOM	465	CA	GLY	Α	109	68.637	96.903	13.968	1.00	40.40	Α
ATOM	466	С	GLY	Α	109	67.728	96.209	12.969	1.00	40.40	Α
ATOM	467	0	GLY	Α	109	66.565	96.600	12.800	1.00	40,40	Α
ATOM	468	N	VAL	Α	110	68.251	95.196	12.282	1.00	36.06	Α
ATOM	469	CA	VAL	A	110	67.460	94.495	11.288	1.00	36.06	Ä
ATOM	470	CB	VAL	A	110	68.275	93.377	10.602	1.00		
ATOM	471	CG1	VAL		110					32.16	A
				A		67.360	92.538	9.711	1.00	32.16	Α
ATOM	472	CG2	VAL	Α	110	69.395	93.995	9.762	1.00	32.16	Α
ATOM	473	C	VAL	Α	110	66.194	93.894	11.876	1.00	36.06	Α
ATOM	474	0	VAL	Α	110	65.109	94.124	11.363	1.00	36.06	Α
ATOM	475	N	ASP	Α	111	66.344	93.140	12.958	1.00	47.90	Α
ATOM	476	CA	ASP	Α	111	65.218	92.484	13.600	1.00	47.90	Α
ATOM	477	CB	ASP	Α	111	65.718	91,522	14.661	1.00	65.18	A
ATOM	478	CG	ASP	A	111	64.738	90.420	14.938	1.00	65.18	Ä
ATOM	479	OD1	ASP	A	111	64.911	89.316				
ATOM	480	OD2	ASP					14.379	1.00	65,18	A
				A	111	63.785	90.661	15.701	1.00	65.18	A
MOTA	481	C	ASP	A	111	64.221	93.438	14.241	1.00	47.90	Α
ATOM	482	0	ASP	Α	111	63.016	93.295	14.050	1.00	47.90	Α
ATOM	483	N	SER	Α	112	64.716	94.402	15.011	1.00	48.62	Α
ATOM	484	CA	SER	Α	112	63.841	95.361	15.679	1.00	48.62	Α
ATOM	485	CB	SER	Α	112	64.578	96,067	16.824	1.00	41.51	Α
ATOM	486	OG	SER	Α	112	65.442	97.079	16.329	1.00	41.51	A
ATOM	487	С	SER	A	112	63.301	96.419	14.728	1.00	48.62	A
ATOM	488	Ō	SER	A	112	62.207	96.937	14.930	1.00	48.62	Â
	489	Ň	GLY	A	113	64.072	96.744	13,697			
ATOM	490	CA	GLY	Â	113	63.647	97.766		1.00	36.94	A
ATOM	491	Č	GLY					12.760	1.00	36.94	A
				Α	113	63.984	99.148	13.302	1.00	36.94	Α
MOTA	492	0	GLY	Α	113	63.781	100.156	12.620	1.00	36.94	Α
ATOM	493	N	LEU	Α	114	64.520	99.197	14.521	1.00	42.02	Α
ATOM	494	CA	LEU	Α	114	64.871	100.463	15.159	1.00	42.02	Α
ATOM	495	CB	LEU	Α	114	64.736	100.334	16.679	1.00	31.99	Α
ATOM	496	CG	LEU	Α	114	63.376	99.778	17.130	1.00	31.99	Α
ATOM	497	CD1	LEU	Α	114	63.406	99.447	18.612	1.00	31.99	Α
ATOM ·	498	CD2	LEU	Α	114	62.277	100.788	16.795	1.00	31.99	A
ATOM	499	С	LEU	Α	114	66.268	100.986	14.819	1.00	42.02	A
ATOM	500	0	LEU	A	114	67.215	100.220	14.624	1.00	42.02	Â
ATOM	501	N .	TYR	A	115	66.374	102.308	14.742	1.00		
ATOM	502	CA	TYR	A	115	67.632				41.73	Ā
ATOM	503	CB	TYR		115		102.977	14.449	1.00	41.73	Ą
ATOM	504	CG		A		67.373	104.276	13.690	1.00	43.44	Α
ATOM			TYR	A	115	66.723	104.072	12.355	1.00	43.44	Α
	505	CD1	TYR	A	115	67.485	103.750	11.234	1.00	43.44	Α
ATOM	506	CE1	TYR	Α	115	66.886	103.512	10.007	1.00	43.44	Α
ATOM	507	CD2	TYR	Α	115	65.336	104.156	12.214	1.00	43.44	Α
ATOM	508	CE2	TYR	Α	115	64.723	103.919	10.991	1.00	43.44	Α
ATOM	509	CZ	TYR	Α	115	65.505	103.596	9.893	1.00	43.44	A
ATOM	510	OH	TYR	Α	115	64.915	103.333	8.680	1.00	43.44	Ä
MOTA	511	С	TYR	Α	115	68.350	103.312	15.748	1.00	41.73	A
ATOM	512	0	TYR	A	115	67.719	103.670	16.747	1.00	41.73	
ATOM	513	N	LEU	À	116	69.669					A
ATOM	514	CA	LEU				103.183	15.739	1.00	33.73	A
ATOM	515	CB		A	116	70.441	103.525	16.916	1.00	33.73	A
			LEU	A	116	71.898	103.106	16.759	1.00	33.45	Α
MOTA	516	CG	LEU	A	116	72.749	103.390	17.999	1.00	33.45	Α
ATOM	517	CD1	LEU	Α	116	72.195	102.589	19.172	1.00	33.45	Α
ATOM	518	CD2	LEU	Α	116	74.211	103.027	17.743	1.00	33.45	Α
ATOM	519	C	LEU	Α	116	70.374	105.045	17.034	1.00	33.73	Α.
ATOM	520	0	LEU	Α	116	70.591	105.774	16.053	1.00	33.73	Α
MOTA	521	N	GLY	Α	117	70.048	105.522	18.232	1.00	33.61	A
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WO 02/24722 PCT/IL01/00871

ATOM	522	CA	GLY	Α	117	69.981	106.953	18.455	1.00	33.61	Α
ATOM	523	Ċ	GLY	A	117	70.658	100.933	19.759	1.00	33.61	Â
ATOM	524	ō	GLY	A	117	70.848	106.470	20.635	1.00	33.61	Â
ATOM	525	Ň	MET	A	118	71.065	108.570	19.879	1.00	30.89	Â
ATOM	526	CA	MET	A	118	71.665	109.040	21.119	1.00	30.89	Â
ATOM	527	CB	MET	Ä	118	73.166	109.277	20.977	1.00	36.59	Â
ATOM	528	CG	MET	A	118	73.830	109.497	22.329	1.00	36.59	A
ATOM	529	SD	MET	A	118	75.518	110.087	22.258	1.00	36.59	Â
ATOM	530	CE	MET	A	118	76.443	108.534	22.230	1.00	36.59	Â
ATOM	531	C	MET	Ā	118	70.967	110.348	21.441	1.00	30.89	A
ATOM	532	ŏ	MET	Â	118	71.003	111.288	20.644	1.00	30.89	Ā
ATOM	533	N	ASN	Â	119	70.308	110.413	22.590	1.00	44.08	A
ATOM	534	CA	ASN	A	119	69.614	111.645	22.944	1.00	44.08	
ATOM	535	ÇB	ASN	Â	119	68.437	111.354	23.881	1.00	34.21	A
ATOM	536	ČG	ASN	Â	119	68.874	110.847	25.233	1.00	34.21	A A
ATOM	537	OD1	ASN	Â	119	70.030	111.020	25.233 25.642	1.00		
ATOM	538	ND2	ASN	Â	119	67.947	110.229			34.21	A
ATOM	539	C ′	ASN	Â	119	70.566	112.677	25.954 23.572	1.00	34.21	A
ATOM	540	ŏ	ASN	Â	119	71.746	112.398	23.800	1.00	44.08	A
ATOM	541	Ň	GLU	Â	120				1.00	44.08	A
ATOM	542	CA	GLU	Ä		70.037	113.867	23.838	1.00	49.84	A
ATOM	543	CB	GLU	Ā	120 120	70.804	114.965	24.412	1.00	49.84	A
ATOM	544	CG	GLU			69.861	116.142	24.648	1.00	71.86	A
ATOM	545	CD	GLU	A	120	70.538	117.446	24.987	1.00	71.86	Ą
ATOM	546	OE1	GLU	A A	120 120	69.752	118.639	24.473	1.00	71.86	À
ATOM	547	OE2	GLU			68.519	118.677	24.688	1.00	71.86	Ą
ATOM	548	C	GLU	A	120	70.369	119.535	23.856	1.00	71.86	A,
ATOM	549	Ö	GLU	A	120	71.580	114.618	25.695	1.00	49.84	A ´
ATOM	550	N	LYS	Α .	120	72.625	115.204	25.964	1.00	49.84	A
ATOM	551	CA	LYS	A	121	71.081	113.670	26.483	1.00	46.92	A
ATOM	552	CB	LYS	A	121	71.771	113.267	27.707	1.00	46.92	A
ATOM	553	CG	LYS	A	121 121	70.806	112.604	28.692	1.00	54.84	A
ATOM	554	CD	LYS	A A	121	69.660	113.476	29.163	1.00	54.84	A
ATOM	555	CE .	LYS		121	68.682	112.679	30.023	1.00	54.84	Ā
ATOM	556	NZ	LYS	A	121	67.455	113.512	30.366	1.00	54.84	Ā
ATOM	557	C	LYS	A A	121	66.380 72.875	112.716	31.028	1.00	54.84	A
ATOM	558	ŏ	LYS		121		112.268	27.378	1.00	46.92	À
ATOM	559	N	GLY	A A	122	73.559 73.026	111.775	28.275	1.00	46.92	Ā
ATOM	560	CA	GLY	A	122		111.953	26.093	1.00	43.12	A
ATOM	561	C	GLY	Ā	122	74.044 73.627	111.008	25.670	1.00	43.12	Ā
ATOM	562	ŏ	GLY		122		109.557	25.824	1.00	43.12	A
ATOM	563	N	GLU	A A	123	74.454 72.344	108.649	25.737	1.00	43.12	A
ATOM	564	CA	GLU	Ā	123	71.888	109.318 107.946	26.051 26.214	1.00	41.94	A
ATOM	565	CB	GLU	Â	123	70.700	107.946		1.00	41.94	A
ATOM	566	CG	GLU	Â	123	71.046		27.178	1.00	66.72	A
ATOM	567	CD	GLU	Â	123	69.906	108.284	28.605	1.00	66.72	A
ATOM	568	OE1	GLU	Â	123	68.828	108.036	29.578	1.00	66.72	A
ATOM	569	OE2	GLU		123		108.658	29.416	1.00	66.72	Ā
ATOM	570	C	GLU	A		70.098	107.213	30.501	1.00	66.72	A
ATOM	571	ŏ	GLU	A A	123 123	71.516 70.896	107.306	24.881	1.00	41.94	À
ATOM	572	N	LEU	Ä	123	71.926	107.940 106.050	24.018	1.00	41.94	Ā
ATOM	573							24.719	1.00	42.10	A
ATOM	574	CA CB	LEU LEU	A	124	71.636	105.294	23.511	1.00	42.10	A
ATOM	575	CG	LEU	A	124	72.618	104.126	23.359	1.00	31.10	A
ATOM	576	CD1	LEU	A	124	74.101	104.456	23.275	1.00	31.10	A
ATOM	577	CD1	LEU	A	124	74.905	103.164	23.248	1.00	31.10	A
		CDZ		A	124	74.357	105.307	22.042	1.00	31.10	A
ATOM	578	U	LEU	Α	124	70.227	104.729	23.620	1.00	42.10	Α

### WO 02/24722

PCT/IL01/00	08	7	1
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ATOM	579	0	LEU	Α	124	69.794	104.328	24.701	1.00	42.10	Α
ATOM	580	N	TYR	A	125	69.521	104.688	22.499	1.00	35.83	A
MOTA	581	CA	TYR	Α	125	68.172	104,144	22.483	1.00	35.83	Α
MOTA	582	CB	TYR	Α	125	67.162	105.191	22.969	1.00	33.16	Α
ATOM	583	CG	TYR	Α	125	66.998	106.361	22.027	1.00	33.16	Α
ATOM	584	CD1	TYR	Α	125	67.900	107.429	22.035	1.00	33.16	Α
ATOM	585	CE1	TYR	Α	125	67.761	108.503	21.151	1.00	33.16	Α
MOTA	586	CD2	TYR	Α	125	65.951	106.392	21.111	1.00	33.16	Α
ATOM	587	CE2	TYR	Α	125	65.798	107.451	20.227	1.00	33.16	Α
ATOM	588	CZ	TYR	Α	125	66.705	108.506	20.251	1.00	33.16	Α
ATOM	589	ОН	TYR	Α	125	66.521	109.560	19.378	1.00	33.16	Α
ATOM	590	С	TYR	Α	125	67.827	103.726	21.063	1.00	35.83	Α
ATOM	591	0	TYR	Α	125	68.450	104.188	20.110	1.00	35.83	Α
ATOM	592	N	GLY	Α	126	66.836	102.851	20.928	1.00	38.80	Α
ATOM	593	CA	GLY	Α	126	66.420	102.405	19.615	1.00	38.80	Α
ATOM	594	·C	GLY	A	126	65.299	103.311	19.162	1.00	38.80	Α
MOTA	595	0	GLY	Α	126	64.254	103.360	19.809	1.00	38.80	Α
ATOM	596	N .	SER	Α	127	65.512	104.023	18.055	1.00	42.59	Α
ATOM	597	CA	SER	Α	127	64.527	104.960	17.525	1.00	42.59	Α
ATOM	598	CB	SER	Α	127	65.234	106.231	17.054	1.00	44.81	Α
ATOM	599	OG	SER	Α	127	64.333	107.119	16.413	1.00	44.81	Α
MOTA	600	C	SER	Α	127	63.653	104.438	16.388	1.00	42.59	Α
ATOM	601	0	SER	A	127	64.138	103.859	15.415	1.00	42.59	Α
ATOM	602	N	GLU	Α	128	62.353	104.681	16.508	1.00	48.10	Α
MOTA	603	CA	GLU	A	128	61.400	104.268	15.498	1.00	48.10	Α
MOTA	604	CB	GLU	A	128	59.991	104.662	15.924	1.00	100.00	Α
ATOM	605	CG	GLU	Α	128	58.916	104.165	14.989	1.00	100.00	Α
ATOM	606	CD	GLU	Ą	128	57.575	104.803	15.267	1.00	100.00	Α
ATOM	607	OE1	GLU	A	128	57.432	106.021	15.012	1.00	100.00	Α
MOTA	608	OE2	GLU	A	128	56.669	104.089	15.744	1.00	100.00	Α
ATOM ATOM	609	C	GLU	A	128	61.729	104.924	14.155	1.00	48.10	Α
ATOM	610	0	GLU	A	128	61.665	104.280	13.110	1.00	48.10	Α
ATOM	611 612	N CA	LYS	A	129	62.094	106.203	14.186	1.00	46.49	Α
ATOM	613	CB	LYS LYS	A	129	62.410	106.925	12.961	1.00	46.49	Α.
ATOM	614	CG		A	129	61.486	108.135	12.824	1.00	97.04	A
ATOM	615	CD	LYS	A	129	60.019	107.755	12.789	1.00	97.04	Α
ATOM	616	CE	LYS	. <b>A</b>	129	59.136 57.675	108.939	12.463	1.00	97.04	Α
ATOM	617	NZ	LYS	A A	129 129	57.675 56.788	108.521	12.392	1.00	97.04	A
ATOM	618	C	LYS	A	129	56.788 63.864	109.657	12.008	1.00	97.04	A
ATOM .	619	ŏ	LYS	Ä	129		107.376	12.853	1.00	46.49	A
ATOM	620	Ŋ	LEU	Â	130	64.523 64.367	107.669	13.853	1.00	46.49	A
ATOM	621	CA	LEU	Â	130	65.736	107.422	11.626	1.00	48.47	A
ATOM	622	CB	LEU	Â	130	66.228	107.851 107.398	11.409 10.033	1.00	48.47	A
ATOM	623	CG	LEU	Â	130	67.754	107.396	9.880	1.00	48.95	A
ATOM	624	CD1	LEU	A	130	68.079	107.322	8.507	1.00	48.95	A
ATOM	625	CD2	LEU	A	130	68.399	108.695	10.054	1.00	48.95	A
ATOM	626	C	LEU	A	130	65.765	109.378	11.525	1.00 1.00	48.95	A
ATOM	627	ŏ	LEU	A	130	65.411	110.101	10.593		48.47	A
ATOM	628	Ň	THR	A	131	66.194	109.858	12.686	1.00 1.00	48.47 40.24	A A
ATOM	629	CA	THR	A	131	66.245	111.285	12.946	1.00	40.24	A
ATOM	630	CB	THR	A	131	65.458	111.627	14.235	1.00	40.24	
ATOM	631	0G1	THR	A	131	66,038	110.940	15.358	1.00	40.73	A A
ATOM	632	CG2	THR	A	131	64.000	111.194	14.090	1.00	40.73	A
ATOM	633	C	THR	Â	131	67,669	111.792	13.085	1.00	40.73	A
ATOM	634	ŏ	THR	Â	131	68.628	111.042	12.916	1.00	40.24	A
ATOM	635	N	GLN	A	132	67.792	113.079	13.390	1.00	50.95	Â
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### WO 02/24722

### FIGURE 2 Continued

# PCT/IL01/00871

ATOM ATOM ATOM	636 637 638	CA CB CG	GLN GLN GLN	A A A	132 132 132	69.093 68.932 68.197	113.700 115.198 115.916	13.556 13.808 12.690	1.00 1.00 1.00	50.95 A 96.26 A 96.26 A	
ATOM	639	CD	GLN	A	132	68.895	115.780	11.344	1.00	96.26 A	
ATOM	640	OE1	GLN	Α	132	69.184	114.673	10.888	1.00	96.26 A	
ATOM	641	NE2	GLN	Α	132	69.162	116.910	10.698	1.00	96.26 A	
MOTA	642	C	GLN	A	132	69.859	113.046	14.694	1.00	50.95 A	
ATOM ATOM	643 644	0	GLN	A	132	71.087	113.018	14.676	1.00	50.95 A	
ATOM	645	N CA	GLU GLU	A A	133 133	69.142 69.802	112.509 111.845	15.679 16.802	1.00 1.00	38.78 A	
ATOM	646	CB	GLU	Ā	133	68.849	111.697	17.995	1.00	38.78 A 42.92 A	
ATOM	647	CG	GLU	Ä	133	68.371	112.986	18.628	1.00	42.92 A	
ATOM	648	CD	GLU	A	133	67.837	112.767	20.042	1.00	42.92 A	
ATOM	649	OE1	GLU	Α	133	67.334	111.662	20.330	1.00	42.92 A	
ATOM	650	OE2	GLU	Α	133	67.915	113.699	20.870	1.00	42.92 A	
ATOM	651	C	GLU	Α	133	70.285	110.447	16.392	1.00	38.78 A	
ATOM	652	0	GLU	Ą	133	70.805	109.693	17.211	1.00	38.78 A	
MOTA	653	N	CYS	A	134	70.110	110.112	15.122	1.00	37.59 A	
ATOM ATOM	654 655	CA CB	CYS CYS	A A	134	70.486	108.803	14.625	1.00	37.59 A	
ATOM	656	SG ·	CYS	A	134 134	69.264 67.933	108.133 107.967	14.011	1.00 1.00	44.56 A	
ATOM	657	C	CYS	Â	134	71.614	107.907	15.181 13.616	1.00	44.56 A 37.59 A	
ATOM	658	ŏ	CYS	Â	134	71.873	100.828	12.944	1.00	37.59 A	
ATOM	659	N	VAL	A	135	72.275	109.967	13.502	1.00	43.83 A	
MOTA	660	CA	VAL	Α	135	73.380	110.092	12.575	1.00	43.83 A	
ATOM	661	CB	VAL	Α	135	73.245	111.373	11.719	1.00	31.92 A	
ATOM	662	CG1	VAL	Α	135	74.511	111.605	10.910	1.00	31.92 A	
ATOM	663	CG2	VAL	Α	135	72.040	111.239	10.781	1,00	31.92 A	
MOTA	664	C	VAL	A	135	74.657	110.135	13.392	1.00	43.83 A	
ATOM ATOM	665 666	O N	VAL PHE	A	135	74.797	110.964	14.295	1.00	43.83 A	
ATOM	667	CA	PHE	A A	136 136	75.580 76.834	109.225 109.183	13.094	1.00	36.43 A	
ATOM	668	CB	PHE	Â	136	76.995	109.163	13.823 14.550	1.00 1.00	36.43 A 27.81 A	
ATOM	669	ĊĠ	PHE	A	136	75.917	107.588	15.537	1.00	27.81 A	
ATOM	670	CD1	PHE	A	136	74.694	107.063	15.123	1.00	27.81 A	
ATOM	671	CD2	PHE	Α	136	76.096	107.902	16.881	1.00	27.81 A	
ATOM	672	CE1	PHE	Α	136	73.654	106.852	16.034	1.00	27.81 A	
ATOM	673	CE2	PHE	A	136	75.066	107.697	17.803	1.00	27.81 A	
ATOM	674	CZ	PHE	Α	136	73.838	107.170	17.378	1.00	27.81 A	
ATOM ATOM	675 676	C O	PHE PHE	A	136	78.034	109.395	12.948	1.00	36.43 A	
ATOM	677	N	ARG	A A	136 137	78.054 79.035	108.995	11.785	1.00	36.43 A	
ATOM	678	CA	ARG	Â	137	80.279	110.046 110.300	13.526 12.836	1.00 1.00	37.38 A 37.38 A	
ATOM	679	CB	ARG	Ä	137	81.011	111.467	13.477	1.00	41.52 A	
ATOM	680	CG	ARG	A	137	80.228	112.737	13.464	1.00	41.52 A	
ATOM	681	CD	ARG	Α	137	81.045	113,863	14.017	1.00	41.52 A	
ATOM	682	NE	ARG	Α	137	80.368	115.130	13.782	1.00	41.52 A	
ATOM	683	CZ	ARG	Α	137	80.944	116.319	13.916	1.00	41.52 A	
ATOM	684	NH1	ARG	A	137	82.217	116.406	14.286	1.00	41.52 A	
ATOM	685	NH2	ARG	A	137	80.246	117.416	13.673	1.00	41.52 A	
ATOM ATOM	686 687	CO	ARG ARG	A	137 137	81.133	109.053	12.965	1.00	37.38 A	
ATOM	688	N	GLU	A A	138	81.595 81.327	108.704 108.368	14.066 11.846	1.00 1.00	37.38 A 39.12 A	
ATOM	689	CA	GLU	A	138	82.143	107.167	11.834	1.00	39.12 A 39.12 A	
ATOM	690	CB	GLU	Â	138	81.585	106.167	10.830	1.00	38.56 A	
MOTA	691	CG	GLU	Α	138	82.370	104.863	10.719	1.00	38.56 A	
MOTA	692	CD	GLU	Α	138	81.719	103.908	9.738	1.00	38.56 A	

WO 02/24722 PCT/IL01/00871

ATOM 693 OE1 GLU A 138 81,670 1042,49 8,542 1,00 38,56 A ATOM 694 OE2 GLU A 138 81,373 102,836 10,158 1,00 38,56 A ATOM 695 C GLU A 138 83,580 107,567 11,451 1,00 39,12 A ATOM 696 O GLU A 138 83,794 106,086 10,365 1,00 39,12 A ATOM 697 N GLN A 139 84,499 107,334 12,357 1,00 40,20 A ATOM 698 CA GLN A 139 85,893 106,971 12,113 1,00 40,20 A ATOM 700 CG GLN A 139 85,893 108,971 12,816 1,00 41,33 A ATOM 701 CD GLN A 139 85,593 108,971 12,816 1,00 41,33 A ATOM 701 CD GLN A 139 85,593 110,190 12,243 1,00 41,33 A ATOM 702 OE1 GLN A 139 86,573 111,386 13,150 1,00 41,33 A ATOM 703 NE2 GLN A 139 86,621 111,404 14,031 1,00 41,33 A ATOM 705 C GLN A 139 86,621 111,404 14,031 1,00 41,33 A ATOM 705 NE C GLN A 139 86,731 111,386 13,150 1,00 41,33 A ATOM 706 C GLN A 139 86,731 111,386 1,10 04,20 A ATOM 705 C GLN A 139 86,731 111,386 1,10 04,20 A ATOM 706 N PHE A 140 87,777 106,217 11,712 1,00 35,98 A ATOM 707 CA PHE A 140 88,777 105,210 11,712 1,00 35,98 A ATOM 708 CB PHE A 140 89,817 105,178 10,865 1,00 40,09 A ATOM 709 CG PHE A 140 90,886 104,134 11,041 1,00 40,09 A ATOM 710 CD1 PHE A 140 90,886 104,134 11,041 1,00 40,09 A ATOM 710 CD1 PHE A 140 90,881 106,374 11,914 1,00 40,09 A ATOM 710 CD1 PHE A 140 92,834 102,150 11,412 1,00 40,09 A ATOM 711 CD2 PHE A 140 92,834 102,150 11,412 1,00 40,09 A ATOM 713 CE2 PHE A 140 92,834 102,150 11,412 1,00 40,09 A ATOM 716 C PHE A 140 89,731 104,322 11,3325 1,00 35,98 A ATOM 716 C PHE A 140 89,845 105,481 11,941 1,00 40,09 A ATOM 717 C GG GLU A 141 99,731 104,322 11,00 11,00 41,49 A ATOM 718 CA GLU A 141 91,414 10,536 10,00 41,49 A ATOM 719 CB GLU A 141 90,373 104,432 11,00 11,00 41,49 A ATOM 710 CB GLU A 141 91,414 105,456 19,274 1,00 35,52 A ATOM 720 CG GLU A 141 91,446 105,466 19,274 1,00 35,52 A ATOM 730 CG GLU A 141 91,446 105,466 19,274 1,00 35,52 A ATOM 731 CE1 GLU A 141 91,446 105,466 19,274 1,00 35,52 A ATOM 732 CG GLU A 141 91,496 105,366 19,274 1,00 35,58 A ATOM 733 CG GLU A 142 92,291 103,355 1,00 40,09 A ATOM 734 CG GLU A 142 92,291 103,466 10,536 10,00 33,61 A ATOM 740 CD GLU													
ATOM 694 OE2 GLU A 138 83.50 107.567 11.451 1.00 391.2 A ATOM 695 C GLU A 138 83.50 107.567 11.451 1.00 391.2 A ATOM 696 O GLU A 138 83.794 108.086 10.365 1.00 391.2 A ATOM 697 N GLN A 139 83.499 107.374 12.377 1.00 40.20 A ATOM 698 CA GLN A 139 85.893 107.671 12.113 1.00 40.20 A ATOM 699 CB GLN A 139 85.593 107.697 12.816 1.00 41.33 A ATOM 701 CD GLN A 139 85.593 101.90 12.243 1.00 41.33 A ATOM 702 OE1 GLN A 139 85.593 110.190 12.243 1.00 41.33 A ATOM 703 NE2 GLN A 139 85.751 111.386 13.150 1.00 41.33 A ATOM 703 NE2 GLN A 139 86.839 106.577 12.856 1.00 41.33 A ATOM 703 NE2 GLN A 139 86.839 106.577 12.585 1.00 41.33 A ATOM 704 C GLN A 139 86.724 106.082 13.706 1.00 41.33 A ATOM 705 O GLN A 139 86.724 106.082 13.706 1.00 40.20 A ATOM 706 CB PHE A 140 88.777 105.200 11.994 1.00 36.98 A ATOM 707 CA PHE A 140 88.777 105.200 11.994 1.00 36.98 A ATOM 709 CG PHE A 140 88.777 105.200 11.994 1.00 36.98 A ATOM 709 CG PHE A 140 91.951 10.4347 11.941 1.00 40.09 A ATOM 701 CD PHE A 140 91.951 10.4347 11.941 1.00 40.09 A ATOM 710 CD1 PHE A 140 91.951 10.4357 11.941 1.00 40.09 A ATOM 710 CD1 PHE A 140 92.924 103.364 12.104 1.00 40.09 A ATOM 711 CD2 PHE A 140 92.834 102.150 10.355 1.00 40.09 A ATOM 713 CE2 PHE A 140 92.834 102.150 10.355 1.00 40.09 A ATOM 714 CZ PHE A 140 92.924 103.364 12.104 1.00 40.09 A ATOM 715 C PHE A 140 92.834 102.150 10.355 1.00 40.09 A ATOM 716 O PHE A 140 92.934 102.355 1.00 36.98 A ATOM 717 C C PHE A 140 92.834 102.150 10.355 1.00 40.09 A ATOM 717 C C PHE A 140 92.834 102.150 10.355 1.00 40.09 A ATOM 717 C C PHE A 140 92.834 102.150 10.355 1.00 40.09 A ATOM 710 CD GLU A 141 90.011 104.432 11.941 1.00 40.09 A ATOM 713 CB GLU A 141 90.011 104.432 11.941 1.00 40.09 A ATOM 715 C PHE A 140 92.934 102.150 10.355 1.00 40.09 A ATOM 716 C PHE A 140 92.935 100.193 10.537 1.00 40.09 A ATOM 717 C C PHE A 140 92.834 102.150 10.00 40.09 A ATOM 718 CA GLU A 141 90.141 100.01 104.432 10.00 40.09 A ATOM 718 CA GLU A 141 90.141 100.01 104.432 10.00 40.09 A ATOM 719 CB GLU A 141 90.141 100.01 104.432 10.00 40.09 A ATO		ATOM	693	OF1	GLU	Δ	138	81 670	104 249	8 542	1.00	38 56	Δ
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ATOM 699 N GLN A 139 84.499 107.334 12.357 1.00 40.20 A ATOM 699 CB GLN A 139 85.893 107.671 12.113 1.00 40.20 A ATOM 700 CG GLN A 139 85.593 110.190 12.243 1.00 41.33 A ATOM 701 CD GLN A 139 85.593 110.190 12.243 1.00 41.33 A ATOM 702 OE1 GLN A 139 85.593 110.190 12.243 1.00 41.33 A ATOM 703 NEZ GLN A 139 86.621 111.404 14.031 1.00 41.33 A ATOM 703 NEZ GLN A 139 86.621 111.404 14.031 1.00 41.33 A ATOM 705 O GLN A 139 86.621 111.404 14.031 1.00 41.33 A ATOM 706 C GLN A 139 86.839 106.577 12.585 1.00 40.20 A ATOM 706 C GLN A 139 86.839 106.577 12.585 1.00 40.20 A ATOM 706 N PHE A 140 88.777 105.200 11.994 1.00 36.98 A ATOM 707 CA PHE A 140 88.777 105.217 11.712 1.00 36.98 A ATOM 708 CB PHE A 140 90.886 104.134 11.041 1.00 40.09 A ATOM 709 CG PHE A 140 90.886 104.134 11.041 1.00 40.09 A ATOM 710 CD1 PHE A 140 90.886 104.134 11.041 1.00 40.09 A ATOM 711 CD2 PHE A 140 92.891 103.364 11.041 1.00 40.09 A ATOM 713 CE2 PHE A 140 92.894 103.364 12.104 1.00 40.09 A ATOM 713 CE2 PHE A 140 92.894 103.364 12.104 1.00 40.09 A ATOM 713 CE2 PHE A 140 92.894 103.364 12.104 1.00 40.09 A ATOM 715 C PHE A 140 92.894 103.364 12.104 1.00 40.09 A ATOM 716 CD PHE A 140 92.894 103.364 12.104 1.00 40.09 A ATOM 717 C CLI PHE A 140 92.894 103.364 11.041 1.00 40.09 A ATOM 717 C CLI PHE A 140 92.894 103.364 11.041 1.00 40.09 A ATOM 716 CD PHE A 140 92.894 103.364 11.041 1.00 40.99 A ATOM 717 C CLI PHE A 140 92.894 103.364 10.00 40.99 A ATOM 718 CB GLU A 141 99.713 104.327 11.412 1.00 39.98 A ATOM 719 CB GLU A 141 99.713 104.327 11.412 1.00 39.98 A ATOM 719 CB GLU A 141 99.713 104.327 10.00 40.09 A ATOM 718 C C GLU A 141 90.713 101.537 100 40.09 A ATOM 718 C C GLU A 141 90.713 101.530 10.537 1.00 40.09 A ATOM 720 CG GLU A 141 90.713 104.524 10.90 40.09 A ATOM 730 CE2 GLU A 141 90.562 105.649 18.888 1.00 39.52 A ATOM 730 CD GLU A 141 90.562 105.649 18.388 1.00 39.52 A ATOM 730 CD GLU A 142 92.39 104.391 17.701 1.00 60.39 A ATOM 730 CD GLU A 142 92.39 104.391 17.701 1.00 60.39 A ATOM 730 CD GLU A 142 92.39 104.391 17.701 1.00 60.39 A ATOM 730		MOTA	696	0	GIII		138			10 365		30.12	
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ATOM 699 CB GLN A 139 86.253 108.971 12.816 1.00 41.33 A ATOM 700 CG GLN A 139 85.751 111.386 13.150 1.00 41.33 A ATOM 707 CD GLN A 139 85.751 111.386 13.150 1.00 41.33 A ATOM 703 NEZ GLN A 139 86.621 111.404 14.031 1.00 41.33 A ATOM 703 NEZ GLN A 139 86.621 111.404 14.031 1.00 41.33 A ATOM 704 C GLN A 139 86.839 106.577 12.585 1.00 40.20 A ATOM 705 O GLN A 139 86.839 106.577 12.585 1.00 40.20 A ATOM 706 N PHE A 140 88.777 106.217 11.712 1.00 36.98 A ATOM 707 CA PHE A 140 88.777 105.200 11.994 1.00 36.98 A ATOM 708 CB PHE A 140 88.777 105.200 11.994 1.00 36.98 A ATOM 709 CG PHE A 140 90.886 104.134 11.041 1.00 40.09 A ATOM 710 CD1 PHE A 140 90.886 104.134 11.041 1.00 40.09 A ATOM 711 CD2 PHE A 140 90.886 104.134 11.041 1.00 40.09 A ATOM 713 CE2 PHE A 140 90.899 102.919 10.3555 1.00 40.09 A ATOM 713 CE2 PHE A 140 90.899 102.919 10.3555 1.00 40.09 A ATOM 713 CE2 PHE A 140 92.924 103.934 12.104 1.00 40.09 A ATOM 715 CD PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 716 CD PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 717 CE1 PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 717 CE PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 716 CD PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 717 CE PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 718 CA PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 718 CA CHARLAN ATOM 718			697	N	GLN	Α	139	84.499	107.334	12.357	1.00	40.20	Α
ATOM 699 CB GLN A 139 86.253 108.971 12.816 1.00 41.33 A ATOM 700 CG GLN A 139 85.751 111.386 13.150 1.00 41.33 A ATOM 707 CD GLN A 139 85.751 111.386 13.150 1.00 41.33 A ATOM 703 NEZ GLN A 139 86.621 111.404 14.031 1.00 41.33 A ATOM 703 NEZ GLN A 139 86.621 111.404 14.031 1.00 41.33 A ATOM 704 C GLN A 139 86.839 106.577 12.585 1.00 40.20 A ATOM 705 O GLN A 139 86.839 106.577 12.585 1.00 40.20 A ATOM 706 N PHE A 140 88.777 106.217 11.712 1.00 36.98 A ATOM 707 CA PHE A 140 88.777 105.200 11.994 1.00 36.98 A ATOM 708 CB PHE A 140 88.777 105.200 11.994 1.00 36.98 A ATOM 709 CG PHE A 140 90.886 104.134 11.041 1.00 40.09 A ATOM 710 CD1 PHE A 140 90.886 104.134 11.041 1.00 40.09 A ATOM 711 CD2 PHE A 140 90.886 104.134 11.041 1.00 40.09 A ATOM 713 CE2 PHE A 140 90.899 102.919 10.3555 1.00 40.09 A ATOM 713 CE2 PHE A 140 90.899 102.919 10.3555 1.00 40.09 A ATOM 713 CE2 PHE A 140 92.924 103.934 12.104 1.00 40.09 A ATOM 715 CD PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 716 CD PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 717 CE1 PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 717 CE PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 716 CD PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 717 CE PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 718 CA PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 718 CA CHARLAN ATOM 718		ATOM	698	CA	GLN	Α	139	85 893	107 671	12 113	1.00	40.20	Δ
ATOM 701 CD GLN A 139 85.593 110.190 12.243 1.00 41.33 A ATOM 701 CD GLN A 139 85.761 111.386 13.150 1.00 41.33 A ATOM 702 OE1 GLN A 139 86.621 111.404 14.031 1.00 41.33 A ATOM 703 NE2 GLN A 139 86.621 111.404 14.031 1.00 41.33 A ATOM 704 C GLN A 139 84.920 112.399 12.940 1.00 41.33 A ATOM 705 O GLN A 139 86.621 111.406 14.031 1.00 41.33 A ATOM 705 O GLN A 139 86.724 106.082 13.766 1.00 40.20 A ATOM 706 N PHE A 140 87.777 106.217 11.712 1.00 36.98 A ATOM 707 CA PHE A 140 88.777 105.200 11.994 1.00 36.98 A ATOM 708 CB PHE A 140 89.817 105.178 10.865 1.00 40.09 A ATOM 709 CG PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 711 CD2 PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 711 CD2 PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 711 CD2 PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 711 CD2 PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 711 CD2 PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 711 CD2 PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 711 CD2 PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 711 CD2 PHE A 140 91.773 101.930 10.537 1.00 40.09 A ATOM 713 CE2 PHE A 140 91.773 101.930 10.537 1.00 40.09 A ATOM 713 CE2 PHE A 140 91.773 101.930 10.537 1.00 40.09 A ATOM 716 O PHE A 140 89.465 105.481 13.325 1.00 36.98 A ATOM 717 N GLU A 141 89.763 104.452 14.096 1.00 41.49 A ATOM 718 CA GLU A 141 89.768 106.626 13.644 1.00 36.98 A ATOM 719 CB GLU A 141 89.763 104.574 15.382 1.00 41.49 A ATOM 720 CG GLU A 141 89.763 104.574 15.382 1.00 41.49 A ATOM 720 CG GLU A 141 89.423 104.141 16.501 1.00 39.52 A ATOM 722 OE1 GLU A 141 90.373 104.574 15.382 1.00 41.49 A ATOM 723 OE2 GLU A 141 90.373 104.574 15.382 1.00 41.49 A ATOM 725 O GLU A 141 90.373 104.574 15.382 1.00 41.49 A ATOM 726 N GLU A 141 90.49 90.966 106.531 17.844 1.00 39.52 A ATOM 727 CA GLU A 141 90.49 90.966 106.531 17.844 1.00 39.52 A ATOM 726 N GLU A 142 92.390 99.507 15.590 1.00 46.79 A ATOM 730 OE2 GLU A 142 92.390 99.507 15.590 1.00 39.52 A ATOM 730 OE2 GLU A 142 92.390 99.507 15.590 1.00 37.61 A ATOM 731 OE1 GLU A 142 92.390 99.50													
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ATOM 703 NE2 GLN A 139 86.621 111.404 14.031 1.00 41.33 A A ATOM 703 NE2 GLN A 139 84.920 112.399 12.940 1.00 41.33 A A ATOM 705 C GLN A 139 86.829 106.577 12.585 1.00 40.20 A A ATOM 706 N PHE A 140 88.777 105.200 11.994 1.00 36.98 A ATOM 707 CA PHE A 140 88.777 105.200 11.994 1.00 36.98 A ATOM 708 CB PHE A 140 89.817 105.178 10.865 1.00 40.09 A ATOM 709 CG PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 710 CD1 PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 711 CD2 PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 711 CD2 PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 711 CD2 PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 713 CE2 PHE A 140 91.951 104.347 11.914 1.00 40.09 A ATOM 711 CD2 PHE A 140 91.951 105.355 1.00 40.09 A ATOM 713 CE2 PHE A 140 92.924 103.384 12.104 1.00 40.09 A ATOM 714 CZ PHE A 140 91.773 101.930 10.537 1.00 40.09 A ATOM 715 C PHE A 140 89.465 105.481 13.325 1.00 36.98 A ATOM 716 C PHE A 140 89.465 105.481 13.325 1.00 36.98 A ATOM 716 C PHE A 140 89.768 106.626 13.644 1.00 36.98 A ATOM 717 N GLU A 141 89.773 104.432 14.096 1.00 41.49 A ATOM 717 C CD G GLU A 141 89.773 104.432 14.096 1.00 41.49 A ATOM 712 CD G GLU A 141 89.773 104.136 1.00 40.09 A ATOM 720 CG GLU A 141 99.733 104.452 14.096 1.00 41.49 A ATOM 720 CG GLU A 141 99.733 104.574 15.382 1.00 39.52 A ATOM 722 CE1 GLU A 141 99.733 104.574 15.382 1.00 39.52 A ATOM 722 CE1 GLU A 141 99.739 104.239 15.590 1.00 41.49 A ATOM 725 C GLU A 141 99.739 104.239 15.590 1.00 41.49 A ATOM 726 N GLU A 141 92.339 104.674 15.382 1.00 39.52 A ATOM 726 C GLU A 141 92.339 104.679 15.392 1.00 41.49 A ATOM 727 CD GLU A 141 92.393 104.674 15.382 1.00 39.52 A ATOM 728 C G GLU A 141 92.390 105.51 17.00 40.09 A ATOM 730 CD GLU A 141 92.399 104.239 15.590 1.00 41.49 A ATOM 730 CD GLU A 141 92.399 106.61 106.51 17.844 1.00 39.52 A ATOM 726 N GLU A 142 92.300 101.193 17.701 1.00 60.39 A ATOM 736 C G GLU A 142 92.300 98.800 17.497 1.00 60.39 A ATOM 736 C G GLU A 142 92.300 98.800 17.497 1.00 60.39 A ATOM 736 C G GLU A 142 92.300 98.800 17.497 1.00 60.		ATOM	701	CD	GLN								
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ATOM 706 N PHE A 140 87.777 106.217 11.712 1.00 40.09 A ATOM 707 CA PHE A 140 89.817 105.178 10.865 1.00 40.09 A ATOM 709 CG PHE A 140 90.886 104.134 11.041 1.00 40.09 A ATOM 709 CG PHE A 140 90.886 104.134 11.041 1.00 40.09 A ATOM 710 CD1 PHE A 140 90.899 102.919 10.355 1.00 40.09 A ATOM 712 CE1 PHE A 140 90.890 102.919 10.355 1.00 40.09 A ATOM 712 CE1 PHE A 140 92.924 103.384 12.104 1.00 40.09 A ATOM 713 CE2 PHE A 140 92.924 103.384 12.104 1.00 40.09 A ATOM 714 CZ PHE A 140 92.8934 102.150 11.412 1.00 40.09 A ATOM 715 C PHE A 140 92.8934 105.481 11.041 1.00 40.09 A ATOM 716 CO PHE A 140 92.8934 105.587 1.00 40.09 A ATOM 717 N GLU A 141 89.485 106.626 13.644 1.00 36.98 A ATOM 717 N GLU A 141 89.713 104.32 14.096 1.00 41.49 A ATOM 718 CA GLU A 141 89.713 104.52 14.096 1.00 41.49 A ATOM 719 CB GLU A 141 89.373 104.574 15.382 1.00 41.49 A ATOM 720 CG GLU A 141 90.552 105.469 18.368 1.00 39.52 A ATOM 721 CD GLU A 141 90.562 105.469 18.368 1.00 39.52 A ATOM 722 CE1 GLU A 141 90.562 105.469 18.368 1.00 39.52 A ATOM 723 CE2 GLU A 141 90.661 106.531 17.844 1.00 39.52 A ATOM 724 C GLU A 141 90.661 106.5451 13.927 1.00 41.49 A ATOM 725 CB GLU A 141 90.661 106.5451 17.844 1.00 39.52 A ATOM 726 N GLU A 141 90.429 105.469 18.368 1.00 39.52 A ATOM 727 CG GLU A 141 90.429 105.469 18.368 1.00 39.52 A ATOM 728 CB GLU A 141 90.429 105.469 18.366 1.00 39.52 A ATOM 728 CB GLU A 141 91.446 105.466 106.531 17.844 1.00 39.52 A ATOM 728 CB GLU A 142 92.300 101.193 17.701 1.00 46.79 A ATOM 730 CC GLU A 142 92.300 101.193 17.701 1.00 46.79 A ATOM 730 CC G GLU A 142 92.300 101.193 17.701 1.00 46.79 A ATOM 730 CC GLU A 142 92.300 101.193 17.701 1.00 60.39 A ATOM 730 CC GLU A 142 92.300 101.193 17.701 1.00 60.39 A ATOM 730 CC GLU A 142 92.300 99.561 13.336 1.00 37.61 A ATOM 730 CC GLU A 142 92.300 99.561 13.336 1.00 37.61 A ATOM 730 CC GLU A 142 92.300 99.561 13.336 1.00 37.61 A ATOM 730 CC GLU A 142 92.300 99.561 13.336 1.00 37.61 A ATOM 740 ND2 ASN A 143 93.000 99.588 13.827 1.00 37.61 A ATOM 740 ND2 ASN A 143 93.000 99.588 13.827 1.00													
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ATOM         706         N         PHE         A         140         87.777         105.200         11.712         1.00         36.98         A           ATOM         708         CB         PHE         A         140         89.817         105.200         11.994         1.00         36.98         A           ATOM         709         CG         PHE         A         140         90.886         104.1347         11.941         1.00         40.09         A           ATOM         711         CD1         PHE         A         140         90.809         102.919         10.355         1.00         40.09         A           ATOM         713         CC2         PHE         A         140         90.809         102.919         10.355         1.00         40.09         A           ATOM         713         CC2         PHE         A         140         92.824         103.384         12.104         1.00         40.09         A           ATOM         716         C         PHE         A         140         92.834         102.153         1.00         36.98         A           ATOM         716         C         PHE         A<		ATOM		O	GLN	Α	139	86.724	106.082	13.706	1.00	40.20	Α
ATOM 708 CB PHE A 140 88.777 105.200 11.994 1.00 36.98 A ATOM 708 CB PHE A 140 90.896 104.134 11.041 1.00 40.09 A ATOM 709 CG PHE A 140 90.896 104.134 11.041 1.00 40.09 A ATOM 710 CD1 PHE A 140 90.896 104.134 11.041 1.00 40.09 A ATOM 711 CD2 PHE A 140 90.899 102.919 10.355 1.00 40.09 A ATOM 711 CD2 PHE A 140 90.899 102.919 10.355 1.00 40.09 A ATOM 713 CE2 PHE A 140 92.894 103.364 12.104 1.00 40.09 A ATOM 713 CE2 PHE A 140 92.894 102.150 11.412 1.00 40.09 A ATOM 713 CE2 PHE A 140 92.894 102.150 11.412 1.00 40.09 A ATOM 714 CZ PHE A 140 92.894 102.150 11.412 1.00 40.09 A ATOM 715 C PHE A 140 89.465 105.481 13.325 1.00 36.98 A ATOM 715 C PHE A 140 89.465 105.481 13.325 1.00 36.98 A ATOM 717 N GLU A 141 89.713 104.432 14.096 1.00 41.49 A ATOM 718 CA GLU A 141 90.373 104.574 15.382 1.00 41.49 A ATOM 719 CB GLU A 141 90.373 104.574 15.382 1.00 41.49 A ATOM 720 CG GLU A 141 90.011 104.126 17.911 1.00 39.52 A ATOM 721 CD GLU A 141 90.11 104.126 17.911 1.00 39.52 A ATOM 722 CE1 GLU A 141 90.11 104.126 17.911 1.00 39.52 A ATOM 722 CE1 GLU A 141 90.166 105.456 18.368 1.00 39.52 A ATOM 723 CE2 GLU A 141 90.66 105.456 18.368 1.00 39.52 A ATOM 725 C GLU A 141 90.467 105.456 18.368 1.00 39.52 A ATOM 726 N GLU A 141 92.379 104.239 15.590 1.00 41.49 A ATOM 726 N GLU A 141 92.379 104.239 15.590 1.00 41.49 A ATOM 726 N GLU A 141 92.391 104.321 15.157 1.00 46.79 A ATOM 726 C GLU A 141 92.391 105.366 15.152 1.00 46.79 A ATOM 728 CB GLU A 141 92.391 105.366 15.152 1.00 46.79 A ATOM 730 CD GLU A 142 92.296 99.361 18.835 1.00 60.39 A ATOM 731 CE1 GLU A 142 92.296 99.361 18.835 1.00 60.39 A ATOM 732 CE2 GLU A 142 92.296 99.361 18.835 1.00 60.39 A ATOM 733 C GLU A 142 92.296 99.361 18.835 1.00 60.39 A ATOM 733 C GLU A 142 92.296 99.361 18.835 1.00 60.39 A ATOM 731 CE1 GLU A 142 92.296 99.361 18.835 1.00 60.39 A ATOM 734 C GLU A 142 92.296 99.361 18.835 1.00 60.39 A ATOM 734 C GLU A 142 92.296 99.361 18.835 1.00 60.39 A ATOM 734 C GLU A 142 92.996 97.526 16.115 1.00 36.68 A ATOM 734 C GLU A 144 90.409 99.070 14.486 61 1.00 36.68 A ATOM 7		ATOM	706	N	PHE	Α	140	87 777	106 217	11 712		36 98	
ATOM 709 CB PHE A 140 89.817 105.178 10.865 1.00 40.09 A ATOM 709 CG PHE A 140 90.886 104.134 11.041 1.00 40.09 A ATOM 711 CD2 PHE A 140 90.809 102.919 10.355 1.00 40.09 A ATOM 711 CD2 PHE A 140 90.809 102.919 10.355 1.00 40.09 A ATOM 712 CE1 PHE A 140 92.924 103.364 12.104 1.00 40.09 A ATOM 713 CE2 PHE A 140 91.971 101.930 10.537 1.00 40.09 A ATOM 714 CZ PHE A 140 91.773 101.930 10.537 1.00 40.09 A ATOM 714 CZ PHE A 140 92.834 102.150 11.412 1.00 40.09 A ATOM 715 C PHE A 140 89.465 105.481 13.325 1.00 36.98 A ATOM 716 O PHE A 140 89.465 105.481 13.325 1.00 36.98 A ATOM 717 N GLU A 141 89.713 104.432 14.096 1.00 41.49 A ATOM 719 CB GLU A 141 89.423 104.141 16.501 1.00 39.52 A ATOM 720 CG GLU A 141 90.373 104.574 15.382 1.00 41.49 A ATOM 721 CD GLU A 141 90.186 106.531 17.844 1.00 39.52 A ATOM 722 OE1 GLU A 141 90.186 106.531 17.844 1.00 39.52 A ATOM 722 OE1 GLU A 141 90.186 106.531 17.844 1.00 39.52 A ATOM 723 OE2 GLU A 141 91.466 105.456 19.274 1.00 39.52 A ATOM 724 C GLU A 141 91.462 103.727 15.392 1.00 41.49 A ATOM 725 O GLU A 141 91.462 103.727 15.392 1.00 41.49 A ATOM 726 N GLU A 141 91.462 103.727 15.392 1.00 41.49 A ATOM 727 CA GLU A 141 91.462 103.727 15.392 1.00 41.49 A ATOM 727 CA GLU A 141 91.462 103.727 15.392 1.00 41.49 A ATOM 727 CA GLU A 141 91.462 103.727 15.392 1.00 41.49 A ATOM 726 N GLU A 142 92.303 101.193 17.701 1.00 60.39 A ATOM 727 CA GLU A 142 92.303 101.193 17.701 1.00 60.39 A ATOM 730 CD GLU A 142 92.303 101.193 17.701 1.00 60.39 A ATOM 730 CD GLU A 142 92.303 101.193 17.701 1.00 60.39 A ATOM 730 CD GLU A 142 92.303 101.193 17.701 1.00 60.39 A ATOM 730 CD GLU A 142 92.303 101.193 17.701 1.00 60.39 A ATOM 730 CD GLU A 142 92.303 101.193 17.701 1.00 60.39 A ATOM 730 CD GLU A 142 92.303 101.193 17.701 1.00 60.39 A ATOM 730 CD GLU A 142 92.303 101.503 11.644 1.00 36.68 A ATOM 730 CD GLU A 142 92.309 99.607 15.167 1.00 36.68 A ATOM 730 CD GLU A 142 92.309 99.607 15.167 1.00 36.68 A ATOM 730 CD GLU A 142 92.309 99.607 15.167 1.00 36.68 A ATOM 730 CD GLU A 142 92.309 99.607 15.167 1.00 36.68													
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ATOM 720 CG GLU A 141 90.011 104.126 17.911 1.00 39.52 A ATOM 721 CD GLU A 141 90.582 105.469 18.368 1.00 39.52 A ATOM 722 OE1 GLU A 141 90.166 106.531 17.844 1.00 39.52 A ATOM 723 OE2 GLU A 141 91.446 105.456 19.274 1.00 39.52 A ATOM 724 C GLU A 141 91.642 103.727 15.392 1.00 41.49 A ATOM 725 O GLU A 141 91.642 103.727 15.392 1.00 41.49 A ATOM 726 N GLU A 142 91.492 102.432 15.157 1.00 46.79 A ATOM 727 CA GLU A 142 92.636 101.536 15.152 1.00 46.79 A ATOM 729 CG GLU A 142 92.300 101.193 17.701 1.00 60.39 A ATOM 730 CD GLU A 142 92.300 101.193 17.701 1.00 60.39 A ATOM 731 OE1 GLU A 142 92.138 99.703 18.029 1.00 60.39 A ATOM 733 CG GLU A 142 92.916 98.880 17.497 1.00 60.39 A ATOM 733 C GLU A 142 92.916 98.880 17.497 1.00 60.39 A ATOM 733 C GLU A 142 92.291 100.139 14.717 1.00 46.79 A ATOM 734 O GLU A 142 92.291 100.139 14.717 1.00 46.79 A ATOM 735 N ASN A 143 93.040 99.558 13.827 1.00 37.61 A ATOM 736 CA ASN A 143 93.040 99.558 13.827 1.00 37.61 A ATOM 736 CA ASN A 143 93.040 99.558 13.827 1.00 37.61 A ATOM 737 CB ASN A 143 93.040 99.558 13.827 1.00 37.61 A ATOM 736 CA ASN A 143 93.040 99.558 13.336 1.00 37.61 A ATOM 737 CB ASN A 143 93.040 99.558 13.827 1.00 36.68 A ATOM 739 OD1 ASN A 143 93.074 97.208 14.448 1.00 36.68 A ATOM 739 OD1 ASN A 143 93.074 97.208 14.448 1.00 36.68 A ATOM 739 OD1 ASN A 143 94.527 97.204 14.856 1.00 36.68 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 36.68 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 36.68 A ATOM 744 CA TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 745 CB TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 745 CB TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 745 CB TRP A 144 90.881 99.037 12.156 1.00 35.86 A ATOM 745 CB TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 746 CG TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 747 CD2 TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 748 CE2 TRP A		MOTA			GIII								
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ATOM 726 N GLU A 142 91.492 102.432 15.157 1.00 46.79 A ATOM 727 CA GLU A 142 92.636 101.536 15.152 1.00 46.79 A ATOM 728 CB GLU A 142 92.300 101.193 17.701 1.00 60.39 A ATOM 730 CD GLU A 142 92.138 99.703 18.029 1.00 60.39 A ATOM 731 OE1 GLU A 142 92.916 98.880 17.497 1.00 60.39 A ATOM 732 OE2 GLU A 142 92.916 98.880 17.497 1.00 60.39 A ATOM 733 C GLU A 142 92.241 100.139 14.717 1.00 46.79 A ATOM 734 O GLU A 142 92.241 100.139 14.717 1.00 46.79 A ATOM 735 N ASN A 143 93.040 99.558 13.827 1.00 37.61 A ATOM 736 CA ASN A 143 93.040 99.558 13.827 1.00 37.61 A ATOM 737 CB ASN A 143 93.040 99.558 13.336 1.00 37.61 A ATOM 738 CG ASN A 143 93.040 97.208 14.448 1.00 36.68 A ATOM 739 OD1 ASN A 143 94.527 97.204 14.856 1.00 36.68 A ATOM 739 OD1 ASN A 143 94.527 97.204 14.856 1.00 36.68 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 36.68 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 36.68 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 37.61 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 37.61 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 37.61 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 37.61 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 37.61 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 37.61 A ATOM 745 CB TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 745 CB TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 745 CB TRP A 144 89.422 97.825 10.611 1.00 35.86 A ATOM 746 CG TRP A 144 89.422 97.825 10.611 1.00 35.86 A ATOM 747 CD2 TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 747 CD2 TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 747 CD2 TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.500 99.070 8.619 7.957 1.00 35.86 A		ATOM	725	0	GLU	Α	141	92,739	104 239				
ATOM 727 CA GLU A 142 92.636 101.536 15.152 1.00 46.79 A ATOM 728 CB GLU A 142 92.300 101.193 17.701 1.00 60.39 A ATOM 730 CD GLU A 142 92.138 99.703 18.029 1.00 60.39 A ATOM 731 OE1 GLU A 142 92.916 98.880 17.497 1.00 60.39 A ATOM 732 OE2 GLU A 142 92.916 99.361 18.835 1.00 60.39 A ATOM 733 C GLU A 142 92.241 100.139 14.717 1.00 60.39 A ATOM 734 O GLU A 142 92.241 100.139 14.717 1.00 46.79 A ATOM 735 N ASN A 143 93.040 99.558 13.827 1.00 37.61 A ATOM 736 CA ASN A 143 92.800 98.205 13.336 1.00 37.61 A ATOM 737 CB ASN A 143 93.074 97.208 14.448 1.00 36.68 A ATOM 738 CG ASN A 143 94.527 97.204 14.856 1.00 36.68 A ATOM 739 OD1 ASN A 143 94.527 97.204 14.856 1.00 36.68 A ATOM 730 OD1 ASN A 143 94.796 97.526 16.115 1.00 36.68 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 37.61 A ATOM 741 C ASN A 143 90.827 96.921 12.940 1.00 37.61 A ATOM 743 N TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 745 CB TRP A 144 89.422 97.825 10.611 1.00 35.86 A ATOM 746 CG TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 747 CD2 TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A		ATOM											
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ATOM 730 CD GLU A 142 92.138 99.703 18.029 1.00 60.39 A ATOM 731 OE1 GLU A 142 92.916 98.880 17.497 1.00 60.39 A ATOM 732 OE2 GLU A 142 91.236 99.361 18.835 1.00 60.39 A ATOM 733 C GLU A 142 91.236 99.361 18.835 1.00 60.39 A ATOM 734 O GLU A 142 91.230 99.607 15.167 1.00 46.79 A ATOM 735 N ASN A 143 93.040 99.558 13.827 1.00 37.61 A ATOM 736 CA ASN A 143 92.800 98.205 13.336 1.00 37.61 A ATOM 737 CB ASN A 143 93.074 97.208 14.448 1.00 36.68 A ATOM 738 CG ASN A 143 94.527 97.204 14.856 1.00 36.68 A ATOM 739 OD1 ASN A 143 95.405 96.922 14.036 1.00 36.68 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 36.68 A ATOM 741 C ASN A 143 91.406 97.995 12.790 1.00 37.61 A ATOM 742 O ASN A 143 90.827 96.921 12.940 1.00 37.61 A ATOM 743 N TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 744 CA TRP A 144 89.558 99.024 11.555 1.00 33.61 A ATOM 745 CB TRP A 144 89.422 97.825 10.611 1.00 35.86 A ATOM 746 CG TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 747 CD2 TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A		ATOM	729	CG	GIII								
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ATOM 733 C GLU A 142 92.241 100.139 14.717 1.00 46.79 A ATOM 734 O GLU A 142 91.230 99.607 15.167 1.00 46.79 A ATOM 735 N ASN A 143 93.040 99.558 13.827 1.00 37.61 A ATOM 736 CA ASN A 143 92.800 98.205 13.336 1.00 37.61 A ATOM 737 CB ASN A 143 93.074 97.208 14.448 1.00 36.68 A ATOM 738 CG ASN A 143 94.527 97.204 14.856 1.00 36.68 A ATOM 739 OD1 ASN A 143 95.405 96.922 14.036 1.00 36.68 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 36.68 A ATOM 741 C ASN A 143 91.406 97.995 12.790 1.00 37.61 A ATOM 742 O ASN A 143 90.827 96.921 12.940 1.00 37.61 A ATOM 743 N TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 744 CA TRP A 144 89.558 99.024 11.555 1.00 33.61 A ATOM 745 CB TRP A 144 89.422 97.825 10.611 1.00 35.86 A ATOM 746 CG TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 747 CD2 TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 748 CE2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A		ATOM	732	OE2	GLU	Δ	142	91 236					
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ATOM 736 CA ASN A 143 92.800 98.205 13.336 1.00 37.61 A ATOM 737 CB ASN A 143 93.074 97.208 14.448 1.00 36.68 A ATOM 738 CG ASN A 143 94.527 97.204 14.856 1.00 36.68 A ATOM 739 OD1 ASN A 143 95.405 96.922 14.036 1.00 36.68 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 36.68 A ATOM 741 C ASN A 143 91.406 97.995 12.790 1.00 37.61 A ATOM 742 O ASN A 143 90.827 96.921 12.940 1.00 37.61 A ATOM 743 N TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 744 CA TRP A 144 89.558 99.024 11.555 1.00 33.61 A ATOM 745 CB TRP A 144 89.422 97.825 10.611 1.00 35.86 A ATOM 746 CG TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 747 CD2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A ATOM 748 CE2 TRP A 144 91.741 98.969 7.957 1.00 35.86 A		ATOM	735	N	ASN	Α	143	93.040	99 558	13 827			
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ATOM 739 OD1 ASN A 143 95.405 96.922 14.036 1.00 36.68 A ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 36.68 A ATOM 741 C ASN A 143 91.406 97.995 12.790 1.00 37.61 A ATOM 742 O ASN A 143 90.827 96.921 12.940 1.00 37.61 A ATOM 743 N TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 744 CA TRP A 144 89.558 99.024 11.555 1.00 33.61 A ATOM 745 CB TRP A 144 89.422 97.825 10.611 1.00 35.86 A ATOM 746 CG TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 747 CD2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A ATOM 748 CE2 TRP A 144 91.741 98.969 7.957 1.00 35.86 A		ATOM	738	CG	ASN	Α	143	94.527	97.204	14.856		36 68	
ATOM 740 ND2 ASN A 143 94.796 97.526 16.115 1.00 36.68 A ATOM 741 C ASN A 143 91.406 97.995 12.790 1.00 37.61 A ATOM 742 O ASN A 143 90.827 96.921 12.940 1.00 37.61 A ATOM 743 N TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 744 CA TRP A 144 89.558 99.024 11.555 1.00 33.61 A ATOM 745 CB TRP A 144 89.422 97.825 10.611 1.00 35.86 A ATOM 746 CG TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 747 CD2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A ATOM 748 CE2 TRP A 144 91.741 98.969 7.957 1.00 35.86 A		ATOM											
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ATOM 742 O ASN A 143 90.827 96.921 12.940 1.00 37.61 A ATOM 743 N TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 744 CA TRP A 144 89.558 99.024 11.555 1.00 33.61 A ATOM 745 CB TRP A 144 89.422 97.825 10.611 1.00 35.86 A ATOM 746 CG TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 747 CD2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A ATOM 748 CE2 TRP A 144 91.741 98.969 7.957 1.00 35.86 A		ATOM	741	С	ASN	Α	143	91.406	97.995	12.790	1.00	37 61	Α
ATOM 743 N TRP A 144 90.881 99.037 12.156 1.00 33.61 A ATOM 744 CA TRP A 144 89.558 99.024 11.555 1.00 33.61 A ATOM 745 CB TRP A 144 89.422 97.825 10.611 1.00 35.86 A ATOM 746 CG TRP A 144 90.430 97.988 9.550 1.00 35.86 A ATOM 747 CD2 TRP A 144 90.500 99.070 8.619 1.00 35.86 A ATOM 748 CE2 TRP A 144 91.741 98.969 7.957 1.00 35.86 A		ATOM											
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ATOM 748 CE2 TRP A 144 91.741 98.969 7.957 1.00 35.86 A													
ATOM 748 CE2 TRP A 144 91.741 98.969 7.957 1.00 35.86 A												35.86	Α
Amata and ama			748	CE2	TRP	Α	144	91.741	98.969	7.957	1.00	35.86	
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4.701.											
ATOM	750	CD1	TRP	Α	144	91.595	97.283	9.406	1.00	35.86	Α
MOTA	751	NE1	TRP	Α	144	92.384	97.868	8.458	1.00	35.86	Α
ATOM	752	CZ2	TRP	Α	144	92.146	99.889	6.976	1.00	35.86	Α
ATOM	753	CZ3	TRP	Α	144	90.034	101.039	7.315	1.00	35.86	Α
ATOM	754	CH2	TRP	Α	144	91.280	100.914	6.671	1.00	35.86	A
ATOM	755	C	TRP	A	144	88.401	99.132	12.529	1.00	33.61	Â
ATOM	756	ŏ	TRP	Â	144						
ATOM						87.238	98.996	12.149	1.00	33.61	Ą
	757	N	TYR	A	145	88.729	99.354	13.795	1.00	36.97	Α
ATOM	758	CA	TYR	Α	145	87.692	99.613	14.774	1.00	36.97	Α
MOTA	759	CB	TYR	Α	145	88.187	99.470	16.202	1.00	39.02	Α
MOTA	760	CG	TYR	Α	145	88.164	98.077	16.739	1.00	39.02	Α
ATOM	761	CD1	TYR	Α	145	89.246	97.222	16.559	1.00	39.02	Α
ATOM	762	CE1	TYR	Α	145	89.242	95.951	17.104	1.00	39.02	A
ATOM	763	CD2	TYR	A	145	87.072	97.622	17.468	1.00	39.02	A
ATOM	764	CE2	TYR	A	145	87.055	96.355	18.013	1.00	39.02	Â
ATOM	765	CZ	TYR	A	145						
ATOM	766	OH				88.143	95.526	17.834	1.00	39.02	A
			TYR	A	145	88.139	94.293	18.424	1.00	39.02	Ą
ATOM	767	C	TYR	A	145	87.448	101.100	14.543	1.00	36.97	Α
ATOM	768	0	TYR	Α	145	88.385	101.850	14.266	1.00	36.97	Α
ATOM	769	N	ASN	Α	146	86.203	101.530	14.623	1.00	32,33	Α
ATOM	770	CA	ASN	Α	146	85.924	102.941	14.463	1.00	32.33	Α
ATOM	771	CB	ASN	Α	146	84.869	103.184	13.381	1.00	40.35	Α
ATOM	772	CG	ASN	Α	146	85,298	102.693	12.022	1.00	40,35	Α
ATOM	773	OD1	ASN	Α	146	86.365	103.058	11.528	1.00	40.35	A
ATOM	774	ND2	ASN	A	146	84.464	101.870	11.400	1.00	40.35	Ä
ATOM	775	C	ASN	A	146	85.372	103.429	15.786	1.00	32.33	
ATOM	776	ŏ.	ASN	Â	146	85.229	103.429	16.753			A
ATOM	777	N	THR	Â	147				1.00	32.33	Α
ATOM	778	CA				85.095	104.720	15.825	1.00	30.02	A
-			THR	A	147	84.465	105.330	16.975	1.00	30.02	Α
ATOM	779	CB	THR	A	147	85.303	106.456	17.602	1.00	33.62	Α
ATOM >	780	OG1	THR	A	147	85.681	107.402	16.593	1.00	33.62	Α
ATOM	781	CG2	THR	Α	147	86,530	105.882	18.284	1.00	33,62	Α
ATOM	782	С	THR	Α	147	83.251	105.921	16.301	1.00	30.02	Α
ATOM	783	0	THR	Α	147	83,298	106.263	15.114	1.00	30.02	Α .
ATOM	784	N	TYR	Α	148	82.153	105.993	17.038	1.00	41.03	Α
ATOM	785	CA	TYR	Α	148	80.929	106.559	16.503	1.00	41.03	Α
ATOM	786	CB	TYR	Α	148	79.875	105.461	16.317	1.00	34.61	Â
ATOM	787	CG	TYR	Α	148	80.270	104.413	15.295	1.00	34.61	Â
ATOM	788	CD1	TYR	Ä	148	81.178	103.405	15.617	1.00	34.61	
ATOM	789	CE1	TYR	A	148	81.605	102.480				A
ATOM	790	CD2	TYR	Â	148			14.659	1.00	34.61	Ą
ATOM	791	CE2	TYR			79.787	104.470	13.989	1.00	34.61	Α
ATOM				A	148	80.199	103.562	13.025	1.00	34.61	Α
	792	CZ	TYR	A	148	81.113	102.569	13.359	1.00	34.61	Α
ATOM	793	ОН	TYR	A	148	81.571	101.697	12.393	1.00	34.61	Α
ATOM	794	C	TYR	Α	148	80.451	107.620	17.476	1.00	41.03	Α
ATOM	795	0	TYR	Α	148	80.125	107.324	18.632	1.00	41.03	Α
ATOM	796	N	SER	Α	149	80.428	108.865	17.019	1.00	37.11	Α
ATOM	797	CA	SER	Α	149	79.988	109.950	17.889	1.00	37.11	Α
ATOM	798	CB	SER	Α	149	81.093	111.002	18.051	1.00	35.33	Α
ATOM	799	OG	SER	Α	149	81.377	111.642	16.815	1.00	35.33	Ä
ATOM	800	C	SER	Α	149	78.744	110.608	17.341	1.00	37.11	Â
ATOM	801	ŏ	SER	Ä	149	78.483	110.568	16.133	1.00	37.11	
ATOM	802	Ň	SER	Ä	150	77.969	111.200	18.241			A
ATOM	803	CA	SER	Â	150	76.758	111.200		1.00	33.63	A
ATOM	804	CB	SER				111.890	17.842	1.00	33.63	Ā
ATOM	805			A	150 150	76.061	112.463	19.073	1.00	34.22	A
		OG	SER	A	150 150	74.954	113.257	18.689	1.00	34.22	A
ATOM	806	С	SER	Α	150	77.153	113.017	16.892	1.00	33.63	Α

### WO 02/24722

# FIGURE 2 Continued

### PCT/IL01/00871

ATOM ATOM	807 808	0 N	SER ASN	A A	150 151	78.196 76.331	113.645 113.267	17.061 15.885	1.00 1.00	33.63 44.56	A A
ATOM	809	CA	ASN	Α	151	76.615	114.323	14.927	1.00	44.56	A
ATOM	810	CB	ASN	Α	151	76.181	113,882	13.523	1.00	38.21	Ä
MOTA	811	CG	ASN	Α	151	76.577	114.876	12,442	1.00	38.21	A
ATOM	812	OD1	ASN	Α	151	77.750	115.243	12.312	1.00	38.21	A
ATOM	813	ND2	ASN	Α	151	75.602	115.306	11.650	1.00	38.21	A
ATOM	814	C	ASN	Α	151	75.796	115.524	15.370	1.00	44.56	Ä
MOTA	815	0	ASN	Α	151	75.771	116.556	14.705	1.00	44.56	Â
ATOM	816	N	LEU	Α	152	75.140	115.383	16.515	1.00	38.69	Â
ATOM	817	CA	LEU	A	152	74.278	116.433	17.033	1.00	38.69	A
MOTA	818	CB	LEU	Α	152	72.847	115.903	17.110	1.00	51.68	A
ATOM	819	CG	LEU	A	152	71.680	116.886	17.141	1.00	51.68	A
ATOM	820	CD1	LEU	Α	152	71.588	117.618	15.814	1.00	51.68	A
ATOM	821	CD2	LEU	A	152	70.390	116.124	17.396	1.00	51.68	Â
ATOM	822	С	LEU	Α	152	74.697	116.952	18.403	1.00	38.69	Ä
ATOM	823	0	LEU	A	152	74.609	118.142	18.664	1.00	38.69	Â
ATOM	824	N	TYR	Α	153	75.155	116.062	19.272	1.00	47.26	Ä
ATOM	825	CA	TYR	Α	153	75.538	116.460	20.615	1.00	47.26	Â
ATOM	826	СВ	TYR	Α	153	74.732	115.653	21.626	1.00	46.55	Ä
ATOM	827	CG	TYR	A	153	73.250	115.726	21.362	1.00	46.55	Â
ATOM	828	CD1	TYR	A	153	72.601	116,965	21.276	1.00	46.55	Â
MOTA	829	CE1	TYR	A	153	71.237	117.047	21.012	1.00	46.55	A
ATOM	830	CD2	TYR	Α	153	72.491	114.566	21.178	1.00	46.55	Ä
ATOM	831	CE2	TYR	Α	153	71.124	114.636	20.915	1.00	46.55	A
ATOM	832	CZ	TYR	A	153	70.505	115.882	20.834	1.00	46.55	A
ATOM	833	OH	TYR	A	153	69.157	115.971	20.582	1.00	46.55	Â
ATOM	834	С	TYR	A	153	77.020	116.289	20.880	1.00	47.26	Â
ATOM	835	0	TYR	A	153	77.664	115.421	20.298	1.00	47.26	Â
ATOM	836	N	LYS	Α	154	77.548	117.118	21.773	1.00		Ä
ATOM	837	CA	LYS	A	154	78.962	117,092	22.133	1.00		Â
ATOM	838	CB	LYS	Α	154	79.797	117.695	21.014	1.00		Ä
ATOM	839	ÇG	LYS	Α	154	79.470	119,159	20.787	1.00		Ä
ATOM	840	CD	LYS	Α	154	80.408	119,822	19.798	1.00		A
MOTA	841	CE	LYS	Α	154	79.997	121.272	19.545	1.00		A
MOTA	842	NZ	LYS	Α	154	80.896	121.935	18.551	1.00		Â
MOTA	843	С	LYS	Α	154	79.194	117.933	23.381	1.00		A
ATOM	844	0	LYS	Α	154	78.296	118.629	23.845	1.00		A
ATOM	845	Ν.	HIS	Α	155	80.412	117.851	23.914	1.00		A
ATOM	846	CA	HIS	A	155	80.818	118.644	25.071	1.00		A
ATOM	847	CB	HIS	Α	155	82.072	118.055	25.711	1.00		A
ATOM	848	CG	HIS	Α	155	81.857	116.718	26.341	1.00		A
ATOM	849	CD2	HIS	Α	155	82.163	115.470	25.912	1.00		Α
ATOM	850	ND1	HIS	Α	155	81.246	116.562	27.567	1.00		Α
ATOM	851	CE1	HIS	Α	155	81.185	115.275	27.868	1.00		A
ATOM	852	NE2	HIS	Α	155	81.734	114.591	26.880	1.00		A
ATOM	853	С	HIS	Α	155	81.149	119,998	24.450	1.00		A
ATOM	854	0	HIS	Α	155	82,192	120.161	23.823	1.00		Α
MOTA	855	N	VAL	Α	156	80.257	120.964	24.616	1.00		Α
ATOM	856	CA	VAL	Α	156	80.445	122.275	24.019	1.00		A
ATOM	857	CB	VAL	Α	156	79.139	123.099	24.128	1.00		Α
MOTA	858	CG1	VAL	Α	156	79.352	124.481	23.590	1.00		Α
ATOM	859	CG2	VAL	Α	156	78.027	122.419	23.325	1.00		Α
MOTA	860	C	VAL	Α	156	81.632	123.085	24.554	1.00		Α
ATOM	861	0	VAL	A	156	82.168	123.940	23.846	1.00		Α
ATOM	862	N	ASP	Α	157	82.062	122.807	25.781	1.00	46.18	Α
ATOM	863	CA	ASP	Α	157	83.181	123.540	26.355	1.00	46.18	Α

PCT/IL01/00871

### WO 02/24722

ATOM	864	СВ	ASP	Α	157	83.130	123.485	27.892	1.00	48.96	Α
ATOM	865	ĊĠ	ASP	A	157	83.086	122.063	28.437	1.00	48.96	Â
ATOM	866	OD1	ASP	Α	157	83.180	121.101	27.642	1.00	48.96	A
ATOM	867	OD2	ASP	A	157	82.961	121.911	29.674	1.00	48.96	A
ATOM	868	C	ASP	Α	157	84.548	123.069	25.856	1.00	46.18	Ä
ATOM	869	ŏ	ASP	Ä	157	85.434	123.890	25.606	1.00	46.18	Ä
ATOM	870	Ň	THR	Ä	158	84.726	121.760	25.704	1.00	43.07	Â
ATOM	871	CA	THR	Α	158	86.001	121.235	25.235	1.00	43.07	A
ATOM	872	CB	THR	A	158	86.454	119.998	26.038	1.00	38.95	Ā
ATOM	873	OG1	THR	Ä	158	85.542	118.914	25.816	1.00	38.95	Â
ATOM.	874	CG2	THR	A	158	86.512	120.321	27.523	1.00	38.95	Ā
ATOM	875	C	THR	A	158	85.954	120.839	23.773	1.00	43.07	
ATOM	876	ŏ	THR.	Â	158	86.990	120.643	23.149	1.00	43.07	A
ATOM	877	Ň	GLY	Â	159	84.753	120.729	23.220	1.00	46.65	A
ATOM	878	CA	GLY	Â	159	84.631	120.728	21.831	1.00		A
ATOM	879	C	GLY	Ä	159	84.608	118.805	21.691	1.00	46.65	A
ATOM	880	ŏ	GLY	Â	159	84.226	118.280	20.649	1.00	46.65	A
ATOM	881	Ň	ARG	Â	160	85.015	118.099	22.741	1.00	46.65	A
ATOM	882	CA	ARG	Â	160	85.013	116.642	22.722		45.58 45.58	A
ATOM	883	CB	ARG	Â	160	85.470			1.00	45.58	Α
ATOM	884	CG	ARG	Â	160		116.088	24.068	1.00	96.26	A
ATOM	885	CD	ARG	Â	160	86,942 87,299	116.275	24.330	1.00	96.26	A
ATOM	886	NE	ARG	Ā	160		115.755	25.706	1.00	96.26	A
ATOM	887	CZ	ARG			88.721	115.899	25.991	1.00	96.26	A
ATOM	888	NH1		A	. 160	89.679	115.244	25.345	1.00	96.26	A
ATOM	889	NH2	ARG ARG	A	160	89.370	114.395	24.374	1.00	96.26	A
ATOM	890	C	ARG	A	160 160	90.949	115.439	25.671	1.00	96.26	A
ATOM	891	Ö	ARG	A	160 160	83.633	116.070	22.371	1.00	45.58	A
ATOM	892	N		A	160	82.584	116.611	22.758	1.00	45.58	Α
ATOM	893	CA	ARG	A	161	83.658	114.950	21.658	1.00	34.58	Ą
ATOM	894	CB	ARG	A	161	82.452	114.287	21.197	1.00	34.58	Α
ATOM	895	CG	ARG ARG	A	161	82.776	113.570	19.885	1.00	44.43	A
ATOM	896	CD		A	161	83.066	114.552	18.778	1.00	44.43	Α
ATOM	897	NE	ARG ARG	A	161	81.783	115.300	18.531	1.00	44.43	A
ATOM	898	CZ		A	161	81.951	116.561	17.844	1.00	44.43	Α
ATOM	899		ARG	A	161	80.971	117.170	17.186	1.00	44.43	Α
ATOM	900	NH1 NH2	ARG	A	161	79.764	116.616	17.124	1.00	44.43	Α
ATOM	900	C	ARG	A	161	81.196	118.344	16.613	1.00	44.43	A
ATOM	902	Ö	ARG	A	161	81.806	113.328	22.177	1.00	34.58	A
ATOM	903	N	ARG	A	161	82.406	112.957	23.182	1.00	34.58	A
ATOM	904	CA	TYR TYR	A	162	80.557	112.972	21.890	1.00	34.84	A
ATOM	905	CB	TYR	A	162 162	79.796	112.006	22.688	1.00	34.84	A
ATOM	906	CG	TYR	A	162	78.312	112.381	22.751	1.00	45.35	A
ATOM	907	CD1	TYR	A		77.922	113.462	23.741	1.00	45.35	A
ATOM	908	CE1		A	162 163	78.879	114.179	24.462	1.00	45.35	Α
ATOM	909		TYR	A	162	78.500°	115.160	25.369	1.00	45.35	A
ATOM	910	CD2	TYR	Α.	162	76.578	113.760	23.952	1.00	45.35	A
		CE2	TYR	A	162	76.188	114.730	24.843	1.00	45.35	Α
ATOM ATOM	911	CZ	TYR	A	162	77.140	115,432	25.556	1.00	45.35	A
	912	OH	TYR	A	162	76.717	116.395	26.452	1.00	45.35	A
ATOM	913	C	TYR	A	162	79.927	110.696	21.909	1.00	34.84	Α
MOTA	914	0	TYR	A	162	79.444	110.594	20.776	1.00	34.84	Ą
MOTA	915	N	TYR	A	163	80.567	109.696	22.502	1.00	38.71	Α
MOTA	916	CA	TYR	A	163	80.762	108.434	21.804	1.00	38.71	Α
ATOM	917	CB	TYR	A	163	82.221	107.976	21.935	1.00	34.22	Α
MOTA	918	CG CD1	TYR	A	163	83.200	108.867	21.218	1.00	34.22	Α
ATOM	919	CD1	TYR	A	163	83.679	110.035	21.815	1.00	34.22	Α
MOTA	920	CE1	TYR	Α	163	84.518	110.905	21.123	1.00	34.22	Α

WO 02/24722 PCT/IL01/00871

ATOM	921	CD2	TYR	Α	163	83.591	108.585	19.908	1.00	34.22	Α
ATOM	922	CE2	TYR	Α	163	84.421	109,445	19,205	1.00	34.22	Α
ATOM	923	CZ	TYR	Α	163	84.881	110.607	19.818	1.00	34.22	Α
ATOM	924	OH	TYR	Α	163	85.677	111.471	19.111	1.00	34.22	Α
ATOM	925	С	TYR	Α	163	79.870	107.278	22.210	1.00	38.71	Α
ATOM	926	0	TYR	Α	163	79.588	107.073	23.397	1.00	38.71	A
ATOM	927	. N	VAL	Α	164	79.429	106.522	21.203	1.00	30.31	Α
ATOM	928	CA	VAL	Α	164	78.633	105.321	21,434	1.00	30.31	A
ATOM	929	CB	VAL	Α	164	78.267	104,608	20.108	1.00	28.31	Α
ATOM	930	CG1	VAL	Α	164	77.683	103.227	20.409	1.00	28.31	Α
ATOM	931	CG2	VAL	Α	164	77.282	105.458	19.290	1.00	28,31	Α
ATOM	932	С	VAL	Α	164	79.600	104.419	22,199	1.00	30.31	Α
ATOM	933	0	VAL	Α	164	80.785	104.361	21.859	1.00	30.31	Α
ATOM	934	N	ALA	Α	165	79.119	103.714	23.219	1.00	32.57	Α
ATOM	935	CA	ALA	Α	165	80.015	102.860	23.975	1.00	32.57	Α
ATOM	936	CB	ALA	Α	165	80.900	103.714	24.875	1.00	45.92	A
ATOM	937	С	ALA	Α	165	79.332	101.792	24.804	1.00	32.57	A
ATOM	938	0	ALA	Α	165	78.219	101.982	25.296	1.00	32.57	A
ATOM	939	N	LEU	Α	166	80.012	100.660	24.953	1.00	42.13	Α.
ATOM	940	CA	LEU	Α	166	79.498	99.565	25.756	1.00	42.13	Α
ATOM	941	CB	LEU	Α	166	70.000	98.305	24.906	1.00	36.18	Ä
ATOM	942	CG	LEU	Α	166	78.240	98.396	23.805	1.00	36.18	Ä
ATOM	943	CD1	LEU	Α	166	78.150	97.066	23,063	1.00	36.18	Ä
ATOM	944	CD2	LEU	Α	166	76.897	98,760	24.412	1.00	36.18	A
ATOM	945	C ·	LEU	Α	166	80.530	99.311	26.847	1.00	42,13	A
ATOM	946	0	LEU	Α	166	81.726	99.233	26.571	1.00	42.13	A
ATOM	947	N	ASN	Α	167	80.067	99.190	28.086	1.00	44.32	A
MOTA	948	CA	ASN	Α	167	80.965	98.960	29.206	1.00	44.32	A
ATOM	949	CB	ASN	Α	167	80.219	99,214	30.509	1.00	45.55	A
ATOM	950	CG	ASN	Α	167	79.882	100.672	30.692	1.00	45.55	Â
ATOM	951	OD1	ASN	Α	167	80.775	101,516	30.692	1.00	45.55	A
ATOM	952	ND2	ASN	Α	167	78.595	100.983	30.837	1.00	45.55	A
ATOM	953	С	ASN	Α	167	81.605	97.575	29.232	1.00	44.32	A
ATOM	954	0	ASN	Α	167	81.255	96.699	28.432	1.00	44.32	A
ATOM	955	N	LYS	Α	168	82.556	97.387	30.149	1.00	50.03	Α
ATOM .	956	CA	LYS	Α	168	83.242	96.106	30.287	1.00	50.03	A
ATOM	957	CB	LYS	Α	168	84.227	96.132	31.457	1.00	71.50	Α
ATOM	958	CG	LYS	Α	168	85.484	96.916	31.193	1.00	71.50	A
ATOM	959	CD	LYS	A ·	168	86.451	96.793	32.362	1.00	71.50	A
ATOM	960	CE	LYS	Α	168	87.746	97.558	32.103	1.00	71.50	Α
ATOM	961	NZ	LYS	Α	168	88.618	97.592	33.318	1.00	71.50	Α
ATOM	962	С	LYS	Α	168	82.245	94.986	30.513	1.00	50.03	Α
ATOM	963	0	LYS	Α	168	82.538	93.832	30.235	1.00	50.03	Α
ATOM	964	N	ASP	Α	169	81.066	95.337	31.013	1.00	53.99	Α
ATOM	965	CA	ASP	Α	169	80.020	94.360	31.291	1.00	53.99	Α
ATOM	966	СВ	ASP	Α	169	79.415	94.635	32.668	1.00	59.01	A
ATOM	967	CG	ASP	Α	169	78.633	95.939	32.714	1.00	59.01	Α
ATOM	968	OD1	ASP	Α	169	78.901	96.840	31.889	1.00	59.01	Α
ATOM	969	OD2	ASP	Α	169	77.751	96.068	33.589	1.00	59.01	Α
ATOM	970	С	ASP	Α	169	78.914	94.354	30.234	1.00	53.99	Α
ATOM	971	0	ASP	Α	169	77.797	93.903	30.503	1.00	53.99	Α
ATOM	972	N	GLY	Α	170	79.220	94.865	29.040	1.00	48.11	Α
ATOM	973	CA	GLY	Α	170	78.243	94.876	27.960	1.00	48.11	Α
ATOM	974	C	GLY	Α	170	77.100	95.855	28.136	1.00	48.11	Α
ATOM	975	0	GLY	Α	170	76,172	95.902	27.331	1.00	48.11	Α
ATOM	976	N	THR	Α	171	77.161	96.629	29.207	1.00	39.40	Α
ATOM	977	CA	THR	Α	171	76.148	97.637	29.493	1.00	39.40	Α

WO 02/24722 PCT/IL01/00871

ATOM	978	СВ	THR	Α	171	76.218	98.067	30.972	1.00	60.37	Α
ATOM	. 979	OG1	THR	A	171	75.692	97.024	31.794	1.00	60.37	Ä
ATOM	980	CG2	THR	A	171	75.418	99.327	31.207	1.00	60.37	A
ATOM	981	С	THR	Α	171	76.371	98.876	28.615	1.00	39.40	Α
ATOM	982	0	THR	Α	171	77.514	99,259	28.339	1.00	39.40	Α
MOTA	983	N	PRO	Α	172	75.284	99.497	28.132	1.00	35.13	Α
ATOM	984	CD	PRO	Α	172	73.846	99.191	28.235	1.00	29.81	Α
ATOM	985	CA	PRO	Α	172	75.519	100,686	27.312	1.00	35.13	Α
MOTA	986	CB	PRO	Α	172	74.136	100,988	26.732	1.00	29.81	Α
ATOM	987	CG	PRO	Α	172	73.209	100.500	27.800	1.00	29.81	Α
ATOM	988	С	PRO	Α	172	76.040	101,792	28.243	1.00	35.13	Α
ATOM	989	0	PRO	Α	172	75.635	101.875	29.401	1.00	35.13	Α
ATOM	990	N	ARG	Α	173	76.958	102.615	27.752	1.00	41.92	Α
ATOM	991	CA	ARG	Α	173	77.502	103.681	28.567	1.00	41.92	Α
ATOM	992	СВ	ARG	Α	173	79.034	103.692	28.475	1.00	50.58	Α
ATOM	993	CG	ARG	Α	173	79.684	104.942	29.049	1.00	50.58	Α
ATOM	994	CD	ARG	Α	173	81.198	104.844	29.090	1.00	50.58	Α
ATOM	995	NE	ARG	Α	173	81.650	104.278	30.353	1.00	50.58	Α
MOTA	996	CZ	ARG	Α	173	82.123	104.986	31.378	1.00	50.58	Α
MOTA	997	NH1	ARG	Α	173	82.224	106.304	31.296	1.00	50.58	Α
ATOM	998	NH2	ARG	A	173	82.465	104.372	32.504	1.00	50.58	Α
ATOM ATOM	999	C	ARG	A	173	76.935	105.029	28.142	1.00	41.92	A
ATOM	1000	0	ARG	A	173	76.502	105.208	27.000	1.00	41.92	A
ATOM	1001 1002	N CA	GLU	A	174	76.913	105.974	29.074	1.00	35.06	Α
ATOM	1002	CB	GLU GLU	A	174	76.427	107.310	28.771	1.00	35.06	Α
ATOM	1003	CG	GLU	A A	174 174	76.381	108.174	30.041	1.00	68.78	A
ATOM	1005	CD	GLU	A	174	75.527 76.269	107.601	31.165	1.00	68.78	Ā
ATOM	1005	OE1	GLU	Ä	174	77.015	106,590 105,741	32.042	1.00	68.78	A
ATOM	1007	OE2	GLU	Â	174	76.092	106.635	31.506	1.00	68.78	A
ATOM	1008	C	GLU	Ä	174	77.429	100.035	33.280 27.779	1.00 1.00	68.78	A
ATOM	1009	ŏ	GLU	Â	174	78.635	107.863	28.036	1.00	35.06 35.06	A
ATOM	1010	Ň.	GLY	A	175	76.936	107.377	26.647	1.00	35.06 35.16	A A
ATOM	1011	CA	GLY	A	175	77.825	108.928	25.638	1.00	35.16	Â
ATOM	1012	C	GLY	A	175	78.479	110.182	26.152	1.00	35.16	Â
ATOM	1013	0	GLY	Α	175	79.390	110.750	25.554	1.00	35.16	Â
ATOM .	1014	N	THR	Α	176	77.996	110.597	27.304	1.00	46.74	Ä
MOTA	1015	CA	THR	Α	176	78.455	111.786	27.970	1.00	46.74	A
ATOM	1016	CB	THR	Α	176	77.329	112,261	28.905	1.00	43.51	A
ATOM	1017	OG1	THR	Α	176	77.021	113.627	28.612	1.00	43.51	Α
ATOM	1018	CG2	THR	Α	176	77.704	112.079	30.356	1.00	43.51	Α
ATOM	1019	С	THR	Α	176	79.753	111.539	28.743	1.00	46.74	A.
ATOM	1020	0	THR	Α	176	80.500	112.472	29.042	1.00	46.74	Α
ATOM	1021	N	ARG	Α	177	80.021	110.275	29.057	1.00	35.63	Α
MOTA	1022	CA	ARG	Α	177	81.209	109.906	29.815	1.00	35.63	Α
ATOM	1023	CB	ARG	Α	177	80.809	109.139	31.078	1.00	62.21	Α
ATOM	1024	CG	ARG	A	177	79.688	109.778	31.882	1.00	62,21	Α
MOTA	1025	CD	ARG -	Α	177	79.780	109.366	33.335	1.00	62.21	Α
MOTA	1026	NE	ARG	Α	177	79.794	107.916	33.496	1.00	62.21	Α
ATOM ATOM	1027	CZ	ARG	A	177	80.449	107.278	34.464	1.00	62.21	Α
	1028	NH1	ARG	A	177	81.146	107.973	35.353	1.00	62.21	A
ATOM ATOM	1029 1030	NH2	ARG	A	177 177	80.418	105.952	34.544	1.00	62.21	A
ATOM	1030	C O	ARG ARG	A	177 177	82.143	109.046	28.973	1.00	35.63	A
ATOM	1031	N	THR	A A	177 178	82.503 82.546	107.936	29.366	1.00	35.63	A
ATOM	1032	CA	THR	A	178	82.546 83.418	109.561 108.798	27.817 26.940	1.00	30.90	A
ATOM	1033	CB	THR	A	178	82.591	108.798	25.827	1.00	30.90	A
		<u> </u>	11117	<i>,</i> ,	170	JZ.JJ 1	100.003	40.041	1.00	28.20	Α

ATOM ATOM ATOM ATOM ATOM ATOM ATOM	1035 1036 1037 1038 1039 1040 1041	OG1 CG2 C O N CA CB	THR THR THR THR LYS LYS LYS	A A A A A A	178 178 178 178 179 179	81.824 81.647 84.460 84.258 85.576 86.653 87.788	109.064 107.050 109.684 110.885 109.081 109.796 110.138	25.103 26.428 26.280 26.146 25.876 25.192 26.161	1.00 1.00 1.00 1.00 1.00 1.00	28.20 A 28.20 A 30.90 A 30.90 A 48.41 A 48.41 A 69.90 A
ATOM ATOM ATOM ATOM	1042 1043 1044 1045	CG CD CE NZ	LYS LYS LYS LYS	A A A	179 179 179 179	87.432 88.603 88.180 89.250	111.284 111.775 112.976 113.510	27.091 27.929 28.798 29.718	1.00 1.00 1.00 1.00	69.90 A 69.90 A 69.90 A
ATOM ATOM ATOM	1046 1047 1048	C O N	LYS LYS ARG	A A A	179 179 180	87.154 87.414 87.264	108.920 107.733 109.521	24.049 24.235 22.867	1.00 1.00 1.00	48.41 A 48.41 A 46.56 A
ATOM ATOM ATOM ATOM	1049 1050 1051 1052	CA CB CG CD	ARG ARG ARG ARG	A A A	180 180 180 180	87.685 88.307 88.731 89.535	108.842 109.849 109.224 110.180	21.645 20.667 19.338 18.467	1.00 1.00 1.00 1.00	46.56 A 34.05 A 34.05 A 34.05 A
ATOM ATOM ATOM	1053 1054 1055	NE CZ NH1	ARG ARG ARG	A A A	180 180 180	88.754 87.997 87.906	111.329 111.348 110.278	18.014 16.920 16.140	1.00 1.00 1.00	34.05 A 34.05 A 34.05 A
ATOM ATOM ATOM ATOM	1056 1057 1058 1059	NH2 C O N	ARG ARG ARG HIS	A A A	180 180 180 181	87.322 88.632 88.379 89.716	112.446 107.652 106.595 107.807	16.606 21.774 21.200 22.523	1.00 1.00 1.00 1.00	34.05 A 46.56 A 46.56 A 45.11 A
ATOM ATOM ATOM	1060 1061 1062	CA CB CG	HIS HIS HIS	A A A	181 181 181	90.692 92.085 92.527	106.728 107.309 108.261	22.636 22.885 21.820	1.00 1.00 1.00	45.11 A 51.67 A 51.67 A
ATOM ATOM ATOM ATOM	1063 1064 1065 1066	CD2 ND1 CE1 NE2	HIS HIS HIS HIS	A A A	181 181 181 181	93.044 92.419 92.848 93.232	109.510 107.970 109.001 109.949	21.897 20.476 19.770 20.607	1.00 1.00 1.00 1.00	51.67 A 51.67 A 51.67 A 51.67 A
ATOM ATOM ATOM ATOM	1067 1068 1069 1070	C O N	HIS HIS GLN	A A A	181 181 182	90.410 91.122 89.386	105.633 104.637 105.800	23.638 23.675 24.458	1.00 1.00 1.00	45.11 A 45.11 A 45.11 A
ATOM ATOM ATOM	1070 1071 1072 1073	CA CB CG CD	GLN GLN GLN GLN	A A A	182 182 182 182	89.058 87.965 88.422 87.339	104.758 105.241 106.365 106.820	25.420 26.375 27.291 28.247	1.00 1.00 1.00 1.00	45.11 A 50.78 A 50.78 A 50.78 A
ATOM ATOM ATOM	1074 1075 1076	OE1 NE2 C	GLN GLN GLN	A A A	182 182 182	86.362 87.501 88.595	107.459 106.481 103.508	27.848 29.520 24.661	1.00 1.00 1.00	50.78 A 50.78 A 45.11 A
ATOM ATOM ATOM	1077 1078 1079 1080	O N CA CB	GLN LYS LYS LYS	A A A	182 183 183 183	87.964 88.916 88.547 89.126	103.597 102.342 101.092 99.911	23.601 25.204 24.565 25.354	1.00 1.00 1.00 1.00	45.11 A 45.48 A 45.48 A 99.67 A
ATOM ATOM ATOM ATOM	1081 1082 1083 1084	CG CD CE NZ	LYS LYS LYS LYS	A A A	183 183 183 183	90.302 91.509 92.404 92.761	99.222 100.142 99.664 98.212	24.663 24.485 23.338	1.00 1.00 1.00	99.67 A 99.67 A 99.67 A
MOTA MOTA MOTA	1085 1086 1087	C O N	LYS LYS PHE	A A A	183 183 184	87.049 86.654 86.214	100.886 100.395 101.281	23.414 24.345 23.290 25.308	1.00 1.00 1.00 1.00	99.67 A 45.48 A 45.48 A 36.90 A
ATOM ATOM ATOM ATOM	1088 1089 1090 1091	CA CB CG CD1	PHE PHE PHE PHE	A A A	184 184 184 184	84.780 84.030 84.341 84.490	101.067 101.259 102.541 103.749	25.157 26.492 27.220 26.540	1.00 1.00 1.00 1.00	36.90 A 45.30 A 45.30 A 45.30 A

ATOM ATOM	1092 1093	CD2 CE1	PHE	A	184	84.427	102.543	28.609	1.00	45.30	A
ATOM	1093	CE2	PHE PHE	A A	184 184	84.718 84.651	104.946 103.721	27.237 29.317	1.00 1.00	45.30 45.30	A A
ATOM	1095	CZ	PHE	A	184	84.798	103.721	28.629	1.00	45.30	Â
ATOM	1096	Č	PHE	Ä	184	84.083	101.849	24.049	1.00	36.90	Ä
MOTA	1097	0	PHE	Α	184	82.867	101.707	23.854	1.00	36.90	Α
ATOM	1098	N	THR	Α	185	84.847	102.652	23.311	1.00	33.33	Α
ATOM	1099	CA	THR	Α	185	84.290	103.432	22,206	1.00	33.33	Α
ATOM	1100	CB	THR	A	185	84.769	104.905	22.259	1.00	42.77	Α
MOTA	1101	OG1	THR	A	185	86.196	104.951	22.168	1.00	42.77	Α.
ATOM ATOM	1102 1103	CG2 C	THR THR	A	185	84.343	105.556	23.556	1.00	42.77	A
ATOM	1103	ŏ	THR	A A	185 185	84.704 84.244	102.832 <sup>°</sup> 103.260	20.852 19.792	1.00 1.00	33.33 33.33	A
ATOM	1105	Ň	HIS	Â	186	85.567	103.200	20.895	1.00	33.46	A A
ATOM	1106	CA	HIS	A	186	86.051	101.201	19.670	1.00	33.46	Â
ATOM	1107	СВ	HIS	Α	186	87.455	100.639	19.900	1.00	42.98	Ä
ATOM	1108	CG	HIS	Α	186	88.440	101.672	20.357	1.00	42.98	Α
ATOM	1109	CD2	HIS	Α	186	88.292	102.998	20.591	1.00	42.98	Α
ATOM	1110	ND1	HIS	Α	186	89.760	101.380	20.629	1.00	42.98	Α
ATOM	1111	CE1	HIS	Α	186	90.380	102.482	21.012	1.00	42.98	Α
ATOM	1112	NE2	HIS	A	186	89.513	103.477	20.998	1.00	42.98	Α
MOTA MOTA	1113 1114	C O	HIS HIS	A	186 186	85.114	100.115	19.190	1.00	33.46	A
ATOM	1115	N	PHE	A A	187	84.886 84.566	99.122 100.319	19.885 17.997	1.00 1.00	33.46 36.19	A
ATOM	1116	CA	PHE	Ä	187	83.644	99.361	17.412	1.00	36.19	A A
ATOM	1117	СВ	PHE	Ä	187	82.236	99.947	17.310	1.00	32.14	Â
<b>MOTA</b>	1118	CG	PHE	Α	187	81.518	100.047	18.619	1.00	32.14	Ä
ATOM	1119	CD1	PHE	Α	187	81.684	101.161	19.442	1.00	32.14	Α
MOTA	1120	CD2	PHE	Α	187	80.640	99.037	19.024	1.00	32.14	Α
MOTA	1121	CE1	PHE	Α	187	80.984	101.270	20.648	1.00	32.14	Α
MOTA MOTA	1122 1123	CE2 CZ	PHE	A	187	79.936	99.140	20.234	1.00	32.14	Α
ATOM	1123	C	PHE PHE	A A	187 187	80.108 84.084	100.262	21.044	1.00	32.14	A
ATOM	1125	ŏ	PHE	Â	187	84.286	98.913 99.726	16.025 15.124	1.00 1.00	36.19	A
ATOM	1126	N	LEU	A	188	84.202	97.601	15.124	1.00	36.19 35.26	A A
ATOM	1127	CA	LEU	A	188	84.600	96.990	14.614	1.00	35.26	Â
MOTA	1128	CB	LEU	Α	188	85.540	95.821	14.911	1.00	36.91	Ä
MOTA	1129	CG	LEU	Α	188	85.877	94.870	13.765	1.00	36.91	Α
ATOM	1130	CD1	LEU	Α	188	86.762	95.575	12.747	1.00	36.91	Α
MOTA	1131	CD2	LEU	A	188	86.565	93.623	14.337	1.00	36.91	Α
ATOM ATOM	1132 1133	C	LEU	A	188	83.395	96.481	13.805	1.00	35.26	A
ATOM	1134	N	PRO	A A	188	82.619 83.201	95.636	14.281	1.00	35.26	A
ATOM	1135	CD	PRO	Â	189 189	83.807	97.013 98.218	12.587 11.995	1.00 1.00	31.65 16.57	A
ATOM	1136	CA	PRO	A	189	82.075	96.541	11.777	1.00	31.65	A A
ATOM	1137	СВ	PRO	A	189	82.037	97.526	10.605	1.00	16.57	Â
ATOM .	1138	CG	PRO	Α	189	82.696	98.754	11.141	1.00	16.57	Ä
ATOM	1139	С	PRO	Α	189	82.444	95.129	11.313	1.00	31.65	Α
ATOM	1140	0	PRO	A	189	83.447	94.943	10.618	1.00	31.65	Α
MOTA	1141	N	ARG	A	190	81.654	94.140	11.714	1.00	32.96	Α
ATOM ATOM	1142 1143	CA	ARG	A	190	81.929	92.765	11.337	1.00	32.96	Ą
ATOM	1143	CB CG	ARG ARG	A A	190 190	81.900 83.004	91.847 92.081	12.555 13.543	1.00	32.13	Ā
ATOM	1145	CD	ARG	A	190	83.550	90.757	13.543	1.00 1.00	32.13 32.13	A A
ATOM	1146	NE	ARG	Â	190	82.515	89.977	14.635	1.00	32.13 32.13	A
ATOM	1147	CZ	ARG	Ä	190	82.240	88.701	14.375	1.00	32.13	Â
MOTA	1148	NH1	ARG	Α	190	82.925	88.021	13.464	1.00	32.13	A

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PCT/IL01/00871

WO 02/24722

ATOM	1206	CD	PRO	Α	198	68.107	85.412	8.144	1.00	48.19	Α
ATOM	1207	CA	PRO	Ä	198	67.047	84.283	6.293	1.00	55.08	Â
ATOM	1208	СВ	PRO	Ä	198	66.324					
ATOM	1209						84.004	7.614	1.00	48.19	Α
		CG	PRO	A	198	66.647	85.199	8.425	1.00	48.19	Α
ATOM	1210	С	PRO	Α	198	66.124	84.842	5.230	1.00	55.08	Α
ATOM	1211	0	PRO	Α	198	65.543	84.084	4.463	1.00	55.08	Α
MOTA	1212	N	GLU	Α	199	65.996	86.159	5.165	1.00	55.26	Α
ATOM	1213	CA	GLU	Α	199	65,114	86.770	4.181	1.00	55.26	A
ATOM	1214	CB	GLU	A	199						
ATOM	1215	CG				64.552	88.090	4.719	1.00	69.97	Α
			GLU	A	199	65.592	89.187	4.918	1.00	69.97	Α
ATOM	1216	CD	GLU	Α	199	66.311	89.100	6.253	1.00	69.97	Α
ATOM	1217	OE1	GLU	Α	199	66.731	87.991	6.642	1.00	69.97	Α
ATOM	1218	OE2	GLU	Α	199	66.466	90.152	6.909	1.00	69.97	A
ATOM	1219	С	GLU	Α	199	65.795	87.024	2.842	1.00	55.26	A
ATOM	1220	Õ	GLU	A	199	65.205	87.638	1.956			
ATOM	1221	Ň	LEU	Â					1.00	55.26	A
					200	67.030	86.562	2.688	1.00	50.69	Α
ATOM	1222	CA	LEU	Α	200	67.760	86.777	1.437	1.00	50.69	Α
ATOM	1223	CB	LEU	Α	200	69.145	86.124	1.500	1.00	37.63	Α
ATOM	1224	CG	LEU	Α	200	69.911	86.143	0.174	1.00	37.63	Α
ATOM	1225	CD1	LEU	Α	200	70.131	87.582	-0.264	1.00	37.63	A
ATOM	1226	CD2	LEU	Α	200	71.222	85.435	0.330	1.00	37.63	
ATOM	1227	C	LEU	Ä	200	67.023					Ą
ATOM	1228	ŏ					86.247	0.211	1.00	50.69	Α
			LEU	A	200	66.899	86.936	-0.804	1.00	50.69	Α
ATOM		N	TYR	Α	201	66.537	85.018	0.311	1.00	43.20	Α
ATOM		CA	TYR	Α	201	65.832	84.391	-0.794	1.00	43.20	Α
ATOM		CB	TYR	Α	201	65.398	82.977	-0.409	1.00	40.00	Α
ATOM	1232	CG	TYR	Α	201	64.177	82.909	0.479	1.00	40.00	Â
ATOM	1233	CD1	TYR	Α	201	64.282	83.036	1.862	1.00	40.00	
<b>ATOM</b>		CE1	TYR	A	201	63.149	82.944				A
ATOM		CD2	TYR					2.682	1.00	40.00	Α
ATOM				A	201	62.911	82.695	-0.069	1.00	40.00	Α
		CE2	TYR	A	201	61.782	82.604	0.735	1.00	40.00	Α
ATOM		CZ	TYR	Α	201	61.905	82.723	2.108	1.00	40.00	Α
ATOM		ОН	TYR	Α	201	60.785	82.587	2.898	1.00	40.00	Α
ATOM	1239	С	TYR	Α	201	64.612	85.190	-1.239	1.00	43.20	Ä
MOTA	1240	0	TYR	Α	201	64.202	85,112	-2.397	1.00	43.20	Â
MOTA		Ņ	LYS	Α	202	64.022	85.948	-0.321	1.00		
ATOM		CA	LYS	Ä	202	62.852	86.746			49.95	A
ATOM		CB	LYS					-0.666	1.00	49.95	Α
ATOM				A	202	62.247	87.382	0.590	1.00	54.88	Α
		CG	LYS	Α	202	61.569	86.379	1.509	1.00	54.88	Α
MOTA		CD	LYS	Α	202	61.122	87.016	2.812	1.00	54.88	Α
ATOM		CE	LYS	Α	202	60.494	85.975	3.731	1.00	54.88	Α
ATOM	1247	NZ	LYS	Α	202	60.129	86.530	5.072	1.00	54.88	Ä
ATOM	1248	С	LYS	Α	202	63.198	87.828	-1.683	1.00	49.95	Â
ATOM	1249	0	LYS	Α	202	62.320	88.374	-2.341	1.00		
ATOM		Ň	ASP	Â	203	64.485				49.95	A
ATOM		CA	ASP				88.115	-1.826	1.00	74.84	Α
				A	203	64.923	89.145	-2.748	1.00	74.84	Α
ATOM		CB	ASP	Ą	203	66.152	89.851	-2.172	1.00	100.00	Α
ATOM		CG	ASP	Α	203	65.829	90.644	-0.916	1.00	100.00	Α
ATOM		OD1	ASP	Α	203	65.135	90.104	-0.027	1.00	100.00	Α
ATOM	1255	OD2	ASP	Α	203	66.272	91.805	-0.814	1.00	100.00	Â
ATOM		С	ASP	Α	203	65.209	88.650	-4.163			
ATOM		Ö	ASP	Â	203	65.449			1.00	74.84	À
ATOM							89.453	-5.064	1.00	74.84	A
		N O A	ILE	A	204	65.187	87.337	-4.371	1.00	57.37	Α
ATOM		CA	ILE	A	204	65.438	86.801	-5.705	1.00	57.37	Α
ATOM		CB	ILE	Α	204	66.806	86.127	-5.819	1.00	79.68	Α
ATOM		CG2	ILE	Α	204	67.902	87.131	-5.530	1.00	79.68	Ä
ATOM	1262	CG1	ILE	Α	204	66.867	84.930	-4.878	1.00	79.68	Ä
								<b>-</b>		. 5.55	, ,

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ATOM	1263	CD1	ILE	Α	204	68.091	84.086	-5.073	1.00	79.68	Α
ATOM	1264	C .	ILE	Ä	204	64.402	85.777	-6.110	1.00	57.37	Ä
ATOM	1265	ŏ	ILE	A	204	64.270	85.460	-7.290	1.00	57.37	Â
ATOM	1266	Ň	LEU	Ä	205	63.677	85.246	-5.133	1.00	60.17	Ä
ATOM	1267	CA	LEU	Ä	205	62.648	84.263	-5.427	1.00	60.17	A
ATOM	1268	CB	LEU	A	205	62.634	83.161	-4.365	1.00	56.15	Â
ATOM	1269	CG	LEU	Â	205	63.902	82.308	<b>-4</b> .263	1.00	56.15	Â
ATOM	1270	CD1	LEU	Â	205	63.609	81.088	-3.401	1.00	56.15	Â
ATOM	1271	CD2	LEU	Â	205	64.356	81.877	-5.647	1.00	56.15	Â
ATOM	1272	C	LEU	Â	205	61.288	84.938	-5.497	1.00	60.17	
ATOM	1273	ŏ	LEU	Â	205	60.926	85.732	-3.437 -4.631	1.00	60.17	A
ATOM	1274	N	SER	Â	206	60.538	84.630				Α.
ATOM	1275	CA	SER	Â	206	59.224		-6.542 6.600	1.00	52.14	. <b>A</b>
ATOM	1276	CB	SER		206		85.220	-6.699	1.00	52.14	A
ATOM	1277	OG		A		58.699	84.983	-8.111	1.00	64.56	A
ATOM	1277		SER	Α	206	58.375	83.620	-8.289	1.00	64.56	A
		C	SER	A	206	58.304	84.547	-5.703	1.00	52.14	Α
ATOM ATOM	1279	0	SER	Α	206	58.417	83.347	-5.478	1.00	52.14	A
ATOM	1280	N	GLN	Α	207	57.403	85.313	-5.098	1.00	49.60	A
	1281	CA	GLN	A	207	56.480	84.735	-4.140	1.00	49.60	A
ATOM	1282	CB	GLN	A	207	55.469	85.778	-3.672	1.00	67.09	Α
ATOM	1283	CG	GLN	A	207	54.576	85.282	-2.555	1.00	67.09	Α
ATOM	1284	CD	GLN	A	207	53.616	86.342	-2.048	1.00	67.09	Α
ATOM	1285	OE1	GLN	Α	207	54.011	87.481	-1.775	1.00	67.09	Α
ATOM	1286	NE2	GLN	A	207	52.347	85.967	-1.902	1.00	67.09	Α
ATOM	1287	C	GLN	Ą	207	55.776	83.624	-4.891	1.00	49.60	Α
ATOM	1288	0	GLN	Ą	207	55.557	82.535	-4.360	1.00	49.60	Α
ATOM	1289	N .	SER	Α	208	55.454	83.923	-6.148	1.00	75.26	Α
ATOM	1290	CA	SER	Α	208	54.782	83.006	-7.063	1.00	75.26	Α
ATOM	1291	CB	SER	Α	208	55.814	82.218	-7.864	1.00	58.83	Α
ATOM	1292	OG	SER	Α	208	55.178	81.248	-8.676	1.00	58.83	Α
ATOM	1293	C	SER	Α	208	53.811	82.041	-6.405	1.00	75.26	Α
ATOM	1294	0	SER	Α	208	54.081	80.825	-6.461	1.00	75.26	Α
ATOM	1295	OXT	SER	Α	208	52.792	82.513	-5.855	1.00	58.83	Α
ATOM	1296	CB	VAL	В	51	30.891	119.792	62.005	1.00	100.00	В
ATOM	1297	CG1	VAL	В	51	30.919	120.511	63.353	1.00	100.00	В
ATOM	1298	CG2	VAL	В	51	32.285	119.318	61.613	1.00	100.00	В
ATOM	1299	C	VAL	В	51	30.374	117.548	63.085	1.00	100.00	В
ATOM	1300	0	VAL	В	51	30.018	117.621	64.265	1.00	100.00	В
ATOM	1301	N	VAL	В	51	28.515	119.051	62.370	1.00	100.00	В
ATOM	1302	CA	VAL	В	51	29.898	118.583	62.054	1.00	100.00	В
ATOM	1303	N	THR	В	52	31.164	116.577	62.628	1.00	100.00	В
ATOM	1512	CG2	ILE	В	76	42.353	94.390	71.153	1.00	81.55	В
ATOM	1513	CG1	ILE	В	76	44.350	95.309	69.924	1.00	81.55	В
ATOM	1514	CD1	ILE	В	76	45.314	94.866	70.993	1.00	81.55	В
ATOM	1515	С	ILE	В	76	42.079	92.360	68.937	1.00	71.00	В
ATOM	1516	0	ILE	В	76	41.192	92.995	68.361	1.00	71.00	В
ATOM	1517	N	PHE	В٠	77	41.960	91.074	69.252	1.00	91.71	В
ATOM	1518	CA	PHE	В	77	40.732	90.343	68.956	1.00	91.71	В
ATOM	1519	CB	PHE	В	77	41.006	88.848	68.783	1.00	99.97	В
ATOM	1520	CG	PHE	В	77	41.620	88.488	67.465	1.00	99.97	В
ATOM	1521	CD1	PHE	В	77	42.966	88.730	67.219	1.00	99.97	В
ATOM	1522	CD2	PHE	В	77	40.849	87.893	66.469	1.00	99.97	В
ATOM	1523	CE1	PHE	В	77	43.541	88.380	65.999	1.00	99.97	В
ATOM	1524	CE2	PHE	В	77	41.413	87.540	65.245	1.00	99.97	В
ATOM	1525	CZ	PHE	В	77	42.763	87.784	65.010	1.00	99.97	В
ATOM	1526	С	PHE	В	77	39.726	90.527	70.080	1.00	91.71	В
ATOM	1527	0	PHE	В	77	40.103	90.650	71.247	1.00	91.71	В

PCT/IL01/00871

### WO 02/24722

ATOM	1528	N	PRO	В	78	38.428	90.553	69.743	1.00	97.35	В
ATOM	1529	CD	PRO	В	78	37.844	90.388	68.401	1.00	87.91	В
ATOM	1530	CA	PRO	В	78	37.384	90.720	70.760	1.00	97.35	В
ATOM	1531	CB	PRO	В	78	36.101					
							90.788	69.931	1.00	87.91	В
ATOM	1532	CG .	PRO	В	78	36.434	89.960	68.723	1.00	87.91	В
ATOM	1533	С	PRO	В	78	37.412	89.536	71.726	1.00	97.35	В
ATOM	1534	0	PRO	В	78	36.866	89.599	72.829	1.00	97.35	В
ATOM	1535	N	ASN	В	79	38.069	88.462	71.292	1.00	99.95	В
ATOM	1536	CA	ASN	В	79	38.216	87.257	72.098	1.00	99.95	В
ATOM	1537	CB	ASN	В	79	38.734	86.090	71.240			
ATOM	1538								1.00	100.00	В
		CG	ASN	В	79	37.862	85.815	70.015	1.00	100.00	В
ATOM	1539	OD1	ASN	В	79	36.646	85.635	70.135	1.00	100.00	В
ATOM	1540	ND2	ASN	В	79	38.484	85.773	68.836	1.00	100.00	В
ATOM	1541	С	ASN	В	79	39.239	87.568	73.190	1.00	99.95	В
ATOM	1542	0	ASN	В	79	39.675	86.674	73.915	1.00	99.95	В
ATOM	1543	N	GLY	В	80	39.620	88.840	73.293	1.00	89.15	В
ATOM	1544	CA	GLY '	В	80	40.602	89.254	74.283	1.00	89.15	В
ATOM	1545	C	GLY	В	80						
						41.982	88.710	73.954	1.00	89.15	В
ATOM	1546	0	GLY	В	80	42.917	88.813	74.754	1.00	89.15	В
ATOM	1547	N	THR	В	81	42.109	88.135	72.761	1.00	99.99	В
ATOM	1548	CA	THR	В	81	43.369	87.551	72.314	1.00	99.99	В
ATOM	1549	CB	THR	В	81	43.131	86.446	71.271	1.00	78.16	В
ATOM	1550	OG1	THR	В .	81	41.905	85.760	71.560	1.00	78.16	В
ATOM	1551	CG2	THR	B	81	44.288	85.454	71.292	1.00	78.16	В
ATOM	1552	C	THR	В	81	44.297	88.582				
ATOM	1553	ŏ	THR	В				71.684	1.00	99.99	B.
					81	43.849	89.586	71.127	1.00	99.99	В
ATOM	1554	N	ILE	В	82	45.595	88.318	71.772	1.00	86.29	В
MOTA	1555	CA	ILE	В	82	46.605	89.197	71.200	1.00	86.29	В
ATOM	1556	CB	ILE	В	82	47.455	89.883	72.299	1.00	88.37	В
ATOM	1557	CG2	ILE	В	82	48.489	90.800	71.661	1.00	88.37	В
ATOM	1558	CG1	ILE	В	82	46.551	90.676	73.249	1.00	88.37	В
ATOM	1559	CD1	ILE	В	82	45.752	91.770	72.581	1.00	88.37	В
<b>ATOM</b>	1560	С	ILE	B	82	47.526	88.362	70.313	1.00	86.29	В
ATOM	1561	ŏ	ILE	В	82	47.945	87.264	70.688	1.00		
ATOM	1562	Ň	GLN	В		47.832				86.29	В
ATOM	1563	CA	GLN		83		88.884	69.131	1.00	100.00	В
				В	83	48.696	88.180	68.193	1.00	100.00	В
ATOM	1564	CB	GLN	В	83	47.939	87.010	67.565	1.00	100.00	В
ATOM	1565	CG	GLN	В	83	46.683	87.429	66.814	1.00	100.00	В
ATOM	1566	CD	GLN	В	83	45.976	86.257	66.155	1.00	100.00	В
ATOM	1567	OE1	GLN	В	83	45.524	85.330	66.831	1.00	100.00	В
ATOM	1568	NE2	GLN	В	83	45.877	86.294	64.827	1.00	100.00	В
ATOM	1569	С	GLN	В	83	49,176	89.126	67.100	1.00	100.00	В
ATOM	1570	Ō	GLN	B	83	49.040	90.344	67.216	1.00	100.00	В
ATOM	1571	Ň	GLY	В	84	49.734					
ATOM	1572	CA	GLY				88.557	66.036	1.00	100.00	В
				В	84	50.225	89.370	64.941	1.00	100.00	В
ATOM	1573	C	GLY	В	84	50.198	88.651	63.608	1.00	100.00	В
ATOM	1574	0	GLY	В	84	50.378	87.435	63.543	1.00	100.00	В
ATOM	1575	N	THR	В	85	49.969	89.409	62.542	1.00	100.00	В
ATOM	1576	CA	THR	В	85	49.924	88.850	61.197	1.00	100.00	В
ATOM	1577	CB	THR	В	85	48.473	88.719	60.687	1.00	91.32	В
ATOM	1578	OG1	THR	В	85	47.879	90.020	60.586	1.00	91.32	В
ATOM	1579	CG2	THR	B	85	47.653	87.862	61.635	1.00	91.32	В
ATOM	1580	C	THR	В	85	50.681					
ATOM	1581	ŏ					89.753	60.234	1.00	100.00	В
			THR	В	85	50.908	90.930	60.523	1.00	100.00	В
ATOM	1582	N	ARG	В	86	51.082	89.196	59.095	1.00	97.48	В
ATOM	1583	CA	ARG	В	86	51.786	89.971	58.084	1.00	97.48	В
ATOM	1584	CB	ARG	В	86	52.687	89.066	57.238	1.00	100.00	В

ATOM	1585	CG	ARG	В	86	53.901	88.526	57.986	1.00	100.00	В
<b>ATOM</b>	1586	CD	ARG	В	86	54.915	87.914	57.026	1.00	100.00	B
ATOM	1587	NE	ARG	В	86	56.186	87.594	57.675	1.00	100.00	В
ATOM	1588	CZ	ARG	В	86						
						56.372	86.585	58.524	1.00	100.00	В
ATOM	1589	NH1	ARG	В	86	55.366	85.778	58.839	1.00	100.00	В
ATOM	1590	NH2	ARG	В	86	57.569	86.382	59.060	1.00	100.00	В
ATOM	1591	С	ARG	В	86	50.726	90.633	57.214	1.00	97.48	В
ATOM	1592	0	ARG	В	86	51.035	91.385	56.291	1.00	97.48	B
ATOM	1593	N	LYS	В	87	49.469	90.341	57.534	1.00	81.65	В
ATOM	1594	CA	LYS	В	87	48.326	90.893	56.821	1.00		
ATOM	1595	CB	LYS							81.65	В
				В	87	47.032	90.260	57.340	1.00	99.90	В
ATOM	1596	CG	LYS	В	87	47.053	88.734	57.419	1.00	99.90	В
ATOM	1597	CD	LYS	В	87	45.766	88.194	58.057	1.00	99.90	В
ATOM	1598	CE	LYS	В	87	45.718	86.659	58.095	1.00	99.90	В
ATOM	1599	NZ	LYS	В	87	46.750	86.049	58.985	1.00	99.90	В
ATOM	1600	С	LYS	В	87	48.280	92.405	57.051	1.00	81.65	В
ATOM	1601	Ö	LYS	В	87	48.296	92.864	58.194	1.00		
ATOM	1602	N	ASP	В	88					81.65	В
						48.235	93.173	55.967	1.00	86.01	В
ATOM	1603	CA	ASP	В	88	48.177	94.629	56.056	1.00	86.01	В
ATOM	1604	CB	ASP	В	88	48.827	95.265	54.827	1.00	72.38	В
ATOM	1605	CG	ASP	В	88	48.752	96.785	54.842	1.00	72.38	В
ATOM	1606	OD1	ASP	В	88	49.424	97.414	55.688	1.00	72.38	В
ATOM	1607	OD2	ASP	В	88	48.019	97.351	54.003	1.00	72.38	В
ATOM	1608	С	ASP	B	88	46.718	95.045	56.132	1.00	86.01	В
ATOM	1609	ŏ	ASP	В	88	45.882					
ATOM	1610	Ň	HIS				94.526	55.392	1.00	86.01	В
				В	89	46.418	95.982	57.026	1.00	76.41	В
ATOM	1611	CA	HIS	В	89	45.055	96.468	57.215	1.00	76.41	В
ATOM	1612	CB	HIS	В	89	44.511	97.075	55.923	1.00	73.52	В
ATOM	1613	CG	HIS	В	89	44.993	98.465	55.668	1.00	73.52	В
ATOM	1614	CD2	HIS	В	89	44.362	99.658	55.768	1.00	73.52	В
ATOM	1615	ND1	HIS	В	89	46.288	98.745	55.291	1.00	73.52	В
ATOM	1616	CE1	HIS	В	89	46.434	100.052	55.170	1.00	73.52	
ATOM	1617	NE2	HIS	B	89	45.280	100.629				В
ATOM	1618	C	HIS	В				55.454	1.00	73.52	В
ATOM	1619	Ö			89	44.089	95.401	57.708	1.00	76.41	В
			HIS	В	89	42.966	95.297	57.211	1.00	76.41	В
ATOM	1620	N	SER	В	90	44.526	94.619	58.691	1.00	98.90	В
ATOM	1621	CA	SER	В	90	43.694	93.568	59.267	1.00	98.90	В
ATOM	1622	CB	SER	В	90	44.531	92.682	60.185	1.00	100.00	В
ATOM	1623	OG	SER	В	90	45.798	92.419	59.611	1.00	100.00	В
ATOM	1624	С	SER	В	90	42.581	94.220	60.080	1.00	98.90	В
ATOM	1625	Ŏ	SER	B	90	42.795	95.247	60.726	1.00		
ATOM	1626	Ň	ARG	В	91	41.396	93.625			98.90	В
ATOM	1627	CA		В				60.054	1.00	99.53	В
			ARG	_	91	40.263	94.167	60.797	1.00	99.53	В
ATOM	1628	СВ	ARG	В	91	39.082	93.196	60.716	1.00	100.00	В
ATOM	1629	CG	ARG	В	91	38.738	92.791	59.291	1.00	100.00	В
ATOM	1630	CD	ARG	В	91	37.795	91.598	59.248	1.00	100.00	В
ATOM	1631	NE	ARG	В	91	37.910	90.876	57.982	1.00	100.00	В
ATOM	1632	CZ	ARG	В	91	39.043	90.345	57.525	1.00	100.00	В
ATOM	1633	NH1	ARG	В	91	40.166	90.453	58.225	1.00	100.00	
ATOM	1634	NH2	ARG	В	91	39.053	89.700	56.366			В
ATOM	1635	C							1.00	100.00	В
			ARG	В	91	40.622	94.424	62.262	1.00	99.53	В
MOTA	1636	0	ARG	В	91	40.234	95.441	62.838	1.00	99.53	В
ATOM	1637	N	PHE	В	92	41.378	93.504	62.853	1.00	81.44	В
ATOM	1638	CA	PHE	В	92	41.771	93.612	64.253	1.00	81.44	В
ATOM	1639	CB	PHE	В	92	41.654	92.238	64.912	1.00	92.47	В
ATOM	1640	CG	PHE	В	92	40.319	91.590	64.699	1.00	92.47	В
ATOM	1641	CD1	PHE	В	92	39.187	92.070	65.350	1.00	92.47	В
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### WO 02/24722

ATOM	1642	CD2	PHE	В	92	40.180	90.537	63.801	1.00	92.47	В
ATOM	1643	CE1	PHE	В	92	37.934	91.513	65.106	1.00	92.47	В
ATOM	1644	CE2	PHE	В	92	38.932	89.974	63.550	1.00	92.47	В
ATOM	1645	CZ	PHE	В	92	37.807	90.464	64.204	1.00	92.47	В
ATOM .	1646	C	PHE	В	92	43.176	94.171	64.444	1.00	81.44	В
ATOM	1647	ŏ	PHE	В	92	43.727	94.123	65.545	1.00	81.44	В
ATOM	1648	N	GLY	В	93	43.750	94.701	63.369	1.00	64.94	В
ATOM	1649	CA	GLY	В	93	45.750	95.276	63.441			
ATOM	1650	C	GLY	В					1.00	64.94	В
ATOM	1651	ŏ	GLY	В	93	45.008	96.790	63.383	1.00	64.94	В
ATOM	1652	N	ILE	В	93 94	46.012 43.799	97.488	63.533	1.00	64.94	В
ATOM	1653	CA	ILE			43.799	97.292	63.153	1.00	65.52	В
ATOM	1654	CB	ILE	В	94		98.723	63.087	1.00	65.52	В
ATOM	1655	CG2		В	94	42.281	99.019	62.275	1.00	52.14	В
ATOM	1656		ILE	В	94	42.051	100.520	62.197	1.00	52.14	В
ATOM	1657	CG1	ILE	В	94	42.414	98.420	60.876	1.00	52.14	В
ATOM		CD1	ILE	В	94	43.591	98.947	60.092	1.00	52.14	В
ATOM	1658	C	ILE	В	94	43.346	99.202	64.518	1.00	65.52	В
	1659	0	ILE	В	94	42.261	99.070	65.082	1.00	65.52	В
MOTA	1660 1661	N	LEU	В	95	44.408	99.750	65.096	1.00	74.57	В
MOTA		CA	LEU	В	95	44.388	100.229	66.471	1.00	74.57	В
ATOM	1662	CB	LEU	В	95	45.656	99.768	67.183	1.00	54.82	В
ATOM	1663	CG	LEU	В	95	46.096	98.352	66.799	1.00	54.82	В
ATOM	1664	CD1	LEU	В	95	47.388	98.006	67.504	1.00	54.82	Β
ATOM	1665	CD2	LEU	В	95	44.998	97.362	67.155	1.00	54.82	В
ATOM	1666	C	LEU	В	95	44.300	101.744	66.536	1.00	74.57	В
MOTA	1667	0	LEU	В	95	44.636	102.433	65.580	1.00	74.57	В
ATOM	1668	N	GLU	В	96	43.844	102.259	67.671	1.00	77.91	В
ATOM	1669	CA	GLU	В	96	43.727	103.697	67.860	1.00	77.91	В
MOTA	1670	СВ	GLU	В	96	42.279	104.090	68.133	1.00	80.12	В
ATOM	1671	CG	GLU	В	96	42.109	105.569	68.393	1.00	80.12	В
ATOM	1672	CD	GLU	В	96	40.659	105.978	68.523	1.00	80.12	В
ATOM	1673	OE1	GLU	. В	96	39.892	105.782	67.551	1.00	80.12	В
ATOM	1674	OE2	GLU	В	96	40.292	106.501	69.598	1.00	80.12	В
ATOM	1675	C	GLU	В	96	44.592	104.115	69.030	1.00	77.91	В
ATOM	1676	0	GLU	В	96	44.395	103.651	70.149	1.00	77.91	В
ATOM	1677	N	PHE	В	97	45.558	104.988	68.773	1.00	61.79	В
ATOM	1678	CA	PHE	В	97	46.438	105.440	69.832	1.00	61.79	В
ATOM	1679	CB	PHE	В	97	47.780	105.877	69.252	1.00	54.42	В
ATOM	1680	CG	PHE	В	97	48.743	104.746	69.059	1.00	54.42	В
MOTA	1681	CD1	PHE	В	97	48.385	103.631	68.307	1.00	54.42	В
ATOM	1682	CD2	PHE	В	97	50.009	104.792	69.633	1.00	54.42	В
ATOM	1683	CE1	PHE	В	97	49.274	102.570	68.129	1.00	54.42	В
ATOM	1684	CE2	PHE	В	97	50.914	103.738	69.466	1.00	54.42	В
ATOM	1685	CZ	PHE	В	97	50.546	102.624	68.710	1.00	54.42	В
ATOM	1686	C	PHE	В	97	45.831	106.552	70.672	1.00	61.79	В
ATOM	1687	0	PHE	В	97	45.244	107.503	70.154	1.00	61.79	В
ATOM	1688	N	ILE	В	98	45.976	106.402	71.983	1.00	69.37	В
ATOM	1689	CA	ILE	В	98	45.454	107.354	72.947	1.00	69.37	В
ATOM	1690	CB	ILE	В	98	44.478	106.669	73.923	1.00	53.98	В
ATOM	1691	CG2	ILE	В .	98	43.824	107.704	74.821	1.00	53.98	В
ATOM	1692	CG1	ILE	В	98	43.409	105.909	73.141	1.00	53.98	В
ATOM	1693	CD1	ILE	В	98	42.536	105.039	74.009	1.00	53.98	В
ATOM	1694	C	ILE	В	98	46.607	107.913	73.760	1.00	69.37	В
ATOM	1695	0	ILE	В	98	47.311	107.164	74.438	1.00	69.37	В
ATOM	1696	N	SER	В	99	46.813	109.222	73.687	1.00	55.09	В
ATOM	1697	CA	SER	В	99	47.881	109.847	74.459	1.00	55.09	В
ATOM	1698	CB	SER	В	99	48.316	111.161	73.807	1.00	87.73	В

### WO 02/24722

ATOM ATOM ATOM ATOM ATOM ATOM	1699 1700 1701 1702 1703 1704	OG C O N CA CB	SER SER SER ILE ILE ILE	B B B B	99 99 99 100 100	47.195 47.382 46.497 47.944 47.557 47.975	111.921 110.089 110.908 109.343 109.468 108.213	73.402 75.887 76.125 76.830 78.226 79.029	1.00 1.00 1.00 1.00 1.00 1.00	87.73 B 55.09 B 55.09 B 76.85 B 76.85 B 65.94 B
ATOM ATOM ATOM ATOM ATOM ATOM	1705 1706 1707 1708 1709 1710 1711	CG2 CG1 CD1 C O N CA	ILE ILE ILE ILE ALA ALA	B B B B B B	100 100 100 100 100 101 101	47.392 47.481 45.974 48.252 47.659 49.515 50.324	108.272 106.952 106.863 110.689 111.458 110.859 111.973	80.436 78.318 78.196 78.812 79.568 78.442 78.914	1.00 1.00 1.00 1.00 1.00 1.00	65.94 B 65.94 B 65.94 B 76.85 B 76.85 B 62.70 B
ATOM ATOM ATOM ATOM ATOM ATOM	1712 1713 1714 1715 1716 1717 1718	CB C O N CA CB	ALA ALA VAL VAL VAL VAL	B B B B B	101 101 101 102 102 102 102	50.451 51.703 52.020 52.523 53.856 54.732 56.099	111.919 111.892 110.921 112.910 112.924 114.016 114.054	80.432 78.268 77.584 78.486 77.909 78.560 77.894	1.00 1.00 1.00 1.00 1.00 1.00	82.58 B 62.70 B 62.70 B 69.95 B 69.95 B 67.80 B
ATOM ATOM ATOM ATOM ATOM ATOM	1719 1720 1721 1722 1723 1724 1725	CG2 C O N CA C	VAL VAL GLY GLY GLY GLY	B B B B B B	102 102 102 103 103 103	54.046 54.535 54.737 54.861 55.535 54.697 55.207	115.369 111.567 111.104 110.927 109.638 108.404 107.287	78.439 78.086 79.211 76.965 77.000 77.296 77.233	1.00 1.00 1.00 1.00 1.00 1.00	67.80 B 69.95 B 69.95 B 62.47 B 62.47 B 62.47 B
ATOM ATOM ATOM ATOM ATOM ATOM	1726 1727 1728 1729 1730 1731 1732	N CA CB CG CD1 CD2	LEU LEU LEU LEU LEU LEU	B B B B B	104 104 104 104 104 104	53.421 52.559 52.017 53.102 52.483 53.826 51.410	108.587 107.451 107.569 107.562 107.827 106.225 107.336	77.617 77.925 79.355 80.438 81.793 80.432 76.938	1.00 1.00 1.00 1.00 1.00 1.00	62.72 B 62.72 B 60.54 B 60.54 B 60.54 B 60.54 B 62.72 B
ATOM ATOM ATOM ATOM ATOM ATOM	1733 1734 1735 1736 1737 1738 1739	O N CA CB CG1 CG2	VAL VAL VAL VAL VAL VAL	B B B B B	104 105 105 105 105 105	50.793 51.112 50.055 50.661 51.563 49.562 49.219	108.337 106.104 105.864 105.726 104.501 105.635 104.621	76.558 76.540 75.572 74.153 74.089 73.118 75.861	1.00 1.00 1.00 1.00 1.00 1.00	62.72 B 67.82 B 67.82 B 78.87 B 78.87 B 78.87 B 67.82 B
ATOM ATOM ATOM ATOM ATOM ATOM	1740 1741 1742 1743 1744 1745 1746	O N CA CB OG C	VAL SER SER SER SER SER	B B B B B B	105 106 106 106 106 106	49.635 48.028 47.127 45.952 46.351 46.624 46.182	103.728 104.586 103.456 103.799 103.757 103.100 103.969	76.596 75.276 75.413 76.334 77.693 74.018 73.267	1.00 1.00 1.00 1.00 1.00 1.00	67.82 B 62.22 B 62.22 B 66.55 B 66.55 B 62.22 B
ATOM ATOM ATOM ATOM ATOM ATOM ATOM	1747 1748 1749 1750 1751 1752 1753	N CA CB CG2 CG1 CD1 C	ILE ILE ILE ILE ILE	B B B B B B	107 107 107 107 107 107 107	46.699 46.277 47.350 47.005 48.707 49.880 44.951	101.820 101.348 100.424 100.075 101.129 100.225 100.606	73.676 72.366 71.774 70.333 71.841 71.627 72.455	1.00 1.00 1.00 1.00 1.00 1.00	71.03 B 71.03 B 50.09 B 50.09 B 50.09 B 71.03 B

WO 02/24722

ATOM	1754	0	ILE	В	107	44.796	99,703	73.268	1.00	71.03	В
<b>ATOM</b>	1755	N	ARG	В	108	44.000	100.990	71.612	1.00	67.11	B
ATOM	1756	CA	ARG	В	108	42.683	100.373	71.610	1.00	67.11	В
ATOM	1757	CB	ARG	В	108	41.640	101.387	72.083	1.00	90.58	В
ATOM	1758	CG	ARG	В	108	40.202	100.888	72.070	1.00	~_90.58	В
ATOM	1759	CD	ARG	В	108	39.249	102.023	72.410	1.00	90.58	В
ATOM	1760	NE	ARG	В	108	37.854	101.596	72.478	1.00	90.58	В
ATOM	1761	CZ	ARG	В	108	36.836	102.417	72.720	1.00	90,58	В
ATOM	1762	NH1	ARG	В	108	37.057	103.712	72.919	1.00	90.58	В
ATOM	1763	NH2	ARG	В	108	35.595	101.947	72.765	1.00	90.58	В
ATOM	1764	C	ARG	В	108	42.293	99.857	70.231	1.00	67.11	В
ATOM	1765	0	ARG	В	108	42.276	100.615	69.260	1.00	67.11	В
ATOM	1766	N .	GLY	В	109	41.976	98.567	70.151	1.00	80.22	В
ATOM	1767	CA	GLY	В	109	41.570	97.988	68.884	1.00	80.22	В
ATOM	1768	C	GLY	В	109	40.281	98.641	68.423	1.00	80.22	В
MOTA	1769	0	GLY	В	109	39.260	98.554	69.097	1.00	80.22	В
ATOM ATOM	1770	N	VAL	В	110	40.326	99.308	67.278	1.00	75.17	В
ATOM	1771	CA	VAL	В	110	39.152	99.983	66.745	1.00	75.17	В
ATOM	1772 1773	CB CG1	VAL	В	110	39.466	100.640	65.381	1.00	54.92	В
ATOM	1774	CG2	VAL VAL	В	110	38.246	101.380	64.858	1.00	54.92	В
ATOM	1775	C	VAL	B B	110	40.635	101.598	65.532	1.00	54.92	В
ATOM	1776	ŏ	VAL	В	110 110	37.977	99.030	66.570	1.00	75.17	В
ATOM	1777	N	ASP	В	111	36.832	99.388	66.838	1.00	75.17	В
ATOM	1778	CA	ASP	В	111	38.262 37.207	97.811 96.832	66.126	1.00	88.28	В
ATOM	1779	СВ	ASP	В	111	37.692	95.765	65.898	1.00	88.28	В
ATOM	1780	CG	ASP	В	111	36.561	94.909	64.915 64.386	1.00 1.00	99.99	В
ATOM	1781	OD1	ASP	В	111	36.843	93.879	63.739	1.00	99.99 99.99	B B
ATOM	1782	OD2	ASP	B	111	35.386	95.269	64.609	1.00	99.99	В
ATOM	1783	С	ASP	В	111	36.715	96.160	67.178	1.00	88.28	В
ATOM	1784	0	ASP	В	111	35,511	96.056	67.410	1.00	88.28	В
ATOM	1785	N	SER	В	112	37.648	95.708	68.007	1.00	74.39	В
ATOM	1786	CA	SER	В	112	37.299	95.031	69.249	1.00	74.39	В
ATOM	1787	CB	SER	В	112	38.474	94.166	69.717	1.00	72.09	В
ATOM	1788	OG	SER	В	112	39.561	94.964	70.147	1.00	72.09	В
ATOM	1789	С	SER	В	112	36.897	95.983	70.372	1.00	74.39	В
ATOM	1790	0	SER	В	112	36.195	95.592	71.304	1.00	74.39	B
ATOM	1791	N	GLY	В	113	37.343	97.230	70.285	1.00	83.88	В
ATOM	1792	CA	GLY	В	113	37.022	98.198	71.317	1.00	83.88	В
ATOM	1793	C	GLY	В	113	37.777	97.893	72.599	1.00	83.88	В
ATOM	1794	0	GLY	В	113	37.534	98.510	73.633	1.00	83.88	В
ATOM	1795	N	LEU	В	114	38.703	96.942	72.523	1.00	62.45	В
ATOM	1796	CA	LEU	В	114	39.496	96.536	73.679	1.00	62.45	В
ATOM	1797	CB	LEU	В	114	39.678	95.015	73.684	1.00	79.61	В
ATOM ATOM	1798 1799	CG CD1	LEU	В	114	38.432	94.133	73.635	1.00	79.61	В
ATOM	1800	CD1 CD2	LEU LEU	В	114	38.853	92.673	73.583	1.00	79.61	В
ATOM	1801	CD2		В	114	37.561	94.406	74.849	1.00	79.61	В
ATOM	1802	0	LEU LEU	B B	114	40.873	97.189	73.724	1.00	62.45	В
ATOM	1803	N	TYR	В	114 115	41.572	97.274	72.714	1.00	62.45	В
ATOM	1804	CA	TYR	В	115	41.268 42.563	97.633	74.908	1.00	69.80	В
ATOM	1805	CB	TYR	В	115	42.538	98.265	75.078	1.00	69.80	В
ATOM	1806	CG	TYR	В	115	41.461	99.217 100.277	76.283 76.176	1.00	74.19	В
ATOM	1807	CD1	TYR	В	115	40.118	99.958	76.176 76.388	1.00 1.00	74.19	В
ATOM	1808	CE1	TYR	В	115	39.114	100.904	76.205	1.00	74.19 74.19	В
ATOM	1809	CD2	TYR	В	115	41.771	101.578	75.784	1.00	74.19 74.19	B B
ATOM	1810	CE2	TYR	B	115	40.772	102.530	75.597	1.00	74.19	В
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WO 02/24722 PCT/IL01/00871

ATOM	1811	CZ	TYR	В	115	39,448	102.183	75.806	1.00	74.19	В
ATOM	1812	ОH	TYR	В	115	38.455	103.106	75.589	1.00	74.19	В
ATOM	1813	C	TYR	В	115	43.616	97.189	75.280	1.00	69.80	В
ATOM	1814	ŏ	TYR	В	115	43.314	96.100	75.759	1.00	69.80	В
ATOM	1815	N	LEU	В	116						
						44.849	97.490	74.894	1.00	74.58	В
ATOM	1816	CA	LEU	В	116	45.941	96.549	75.055	1.00	74.58	В
ATOM	1817	СВ	LEU	В	116	47.096	96.895	74.114	1.00	60.23	В
ATOM	1818	CG	LEU	В	116	48.362	96.057	74.344	1.00	60,23	В
ATOM	1819	CD1	LEU	В	116	48.085	94.607	73.967	1.00	60.23	В
ATOM	1820	CD2	LEU	В	116	49.520	96.605	73.529	1.00	60,23	В
ATOM	1821	C	LEU	В	116	46.431	96.609	. 000	1.00	74.58	В
ATOM	1822	0	LEU	В	116	46.829	97.672	76.978	1.00	74.58	В
ATOM	1823	N	GLY	В	117	46.403	95.465	77.170	1.00	91.27	В
ATOM	1824	CA	GLY	В	117	46.854	95.410	78.547	1.00	91.27	В
ATOM	1825	С	GLY	В	117	47.935	94.371	78.767	1.00	91.27	В
ATOM	1826	0	GLY	В	117	48.195	93.531	77.905	1.00	91.27	В
ATOM	1827	N	MET	В	118	48.575	94.439	79.927	1.00	96.23	В
ATOM	1828	CA	MET	В	118	49.622	93.496	80.287	1.00	96.23	В
ATOM	1829	CB	MET	В	118	50.998	94.064	79.943	1.00	79.11	В
ATOM	1830	CG	MET	B	118	52.127	93.097	80.231	1.00	79.11	В
ATOM	1831	SD	MET	В	118	53.724	93.895	80.434	1.00	79.11	В
ATOM	1832	CE	MET	В	118	54.334	93.863	78.735	1.00	79.11	
ATOM	1833	Č	MET	В	118	49.536	93.238	81.789	1.00	96.23	В
ATOM	1834	ŏ	MET	В	118	49.933	94.087	82.593		96.23	В
ATOM	1835	N	ASN	В	119	49.020	92.069		1.00		В
ATOM	1836	CA	ASN	В	119	48.871	92.069	82.166	1.00	100.00	В
ATOM	1837	CB	ASN	В	119	48.084	91.724	83.578	1.00	100.00	В
ATOM	1838	CG	ASN	В	119			83.743	1.00	95.42	В
ATOM	1839	OD1	ASN	В	119	48.746	89.248	83.056	1.00	95.42	В
ATOM	1840	ND2	ASN	В		49.948	89.022	83.207	1.00	95.42	В
ATOM	1841	C	ASN		119	47.961	88.485	82.303	1.00	95.42	В
ATOM	1842	ŏ	ASN	B B	119	50.189	91.617	84.327	1.00	100.00	В
ATOM	1843	N	GLU		119	51.267	91.695	83.738	1.00	100.00	В
ATOM	1844	CA	GLU	В	120	50.082	91.430	85.638	1.00	93.68	В
ATOM	1845			В	120	51.241	91.327	86.513	1.00	93.68	В
ATOM		СВ	GLU	В	120	50.785	90.913	87.908	1.00	100.00	В
	1846	CG	GLU	В	120	51.885	90.917	88.944	1.00	100.00	В
ATOM	1847	CD	GLU.	В	120	51.349	90.708	90.343	1.00	100.00	В
ATOM	1848	OE1	GLU	В	120	50.724	89.652	90.590	1.00	100.00	В
ATOM	1849	OE2	GLU	В	120	51.550	91.603	91.191	1.00	100.00	В
ATOM	1850	C	GLU	В	120	52.309	90.362	86.008	1.00	93.68	В
MOTA	1851	0	GLU	В	120	53.506	90.599	86.189	1.00	93.68	В
ATOM	1852	N	LYS	В	121	51.876	89.275	85.380	1.00	100.00	В
ATOM	1853	CA	LYS	В	121	52.806	88.282	84.856	1.00	100.00	В
ATOM	1854	СВ	LYS	В	121	52.047	87.025	84.416	1.00	100.00	В
ATOM	1855	CG	LYS	В	121	51.533	86.181	85.575	1.00	100.00	В
ATOM	1856	CD	LYS	В	121	50.645	85.033	85.107	1.00	100.00	В
ATOM	1857	CE	LYS	В	121	49.336	85.540	84.516	1.00	100.00	В
ATOM	1858	NZ	LYS	В	121	48.381	84.433	84.229	1.00	100.00	В
ATOM	1859	С	LYS	В	121	53.616	88.833	83.688	1.00	100.00	В
ATOM	1860	0	LYS	В	121	54.817	88.578	83.576	1.00	100.00	В
ATOM	1861	N	GLY	В	122	52.956	89.601	82.827	1.00	83.99	В
ATOM	1862	CA	GLY	В	122	53.627	90.162	81.669	1.00	83.99	В
ATOM	1863	С	GLY	В	122	52.930	89.647	80.429	1.00	83.99	В
ATOM	1864	0	GLY	В	122	53.497	89.613	79.336	1.00	83.99	В
ATOM	1865	N	GLU	В	123	51.682	89.237	80.617	1.00	89.80	В
ATOM	1866	CA	GLU	В	123	50.872	88.710	79.533	1.00	89.80	В
ATOM	1867	CB	GLU	В	123	49.971	87.587	80.046	1.00	100.00	В

WO 02/24722 PCT/IL01/00871

АТОМ	1868	CG	GLU	В	123	50.718	86.411	80.647	1.00	100.00	В
ATOM	1869	CD	GLU	В	123	49.780	85.312	81.107	1.00	100.00	B
ATOM	1870	OE1	GLU	В	123	50.277	84.266	81.576	1.00	100.00	В
ATOM	1871	OE2	GLU	В	123	48.546	85.496	81.001	1.00	100.00	В
ATOM	1872	С	GLU	В	123	50.013	89.806	78.924	1.00	89.80	В
ATOM	1873	0	GLU	В	123	49.378	90.585	79.637	1.00	89.80	В
ATOM	1874	N	LEU	В	124	49.994	89.852	77.597	1.00	86.82	В
ATOM	1875	CA	LEU	В	124	49.215	90.846	76.876	1.00	86.82	В
ATOM	1876	CB	LEU	В	124	49.876	91.146	75.524	1.00	95.45	В
ATOM	1877	CG	LEU	В	124	51.380	91.450	75.560	1.00	95.45	В
ATOM	1878	CD1	LEU	В	124	51.905	91.625	74.145	1.00	95.45	В
ATOM	1879	CD2	LEU	В	124	51.639	92.695	76.386	1.00	95.45	В
MOTA	1880	C	LEU	В	124	47.793	90.332	76.666	1.00	86.82	В
ATOM ATOM	1881 1882	O N	LEU TYR	В	124	47.588	89.187	76.261	1.00	86.82	В
ATOM	1883	CA	TYR	B B	125	46.815	91.183	76.955	1.00	71.65	В
ATOM	1884	CB	TYR	B	125 125	45.411 44.843	90.823	76.796	1.00	71.65	В
ATOM	1885	CG	TYR	В	125	44.833	90.282 91.299	78.109	1.00	65.11	В
ATOM	1886	CD1.	TYR	В	125	45.994	91.581	79.235 79.962	1.00	65.11	В
ATOM	1887	CE1	TYR	В	125	45.991	92.540	80.980	1.00 1.00	65.11 65.11	В
ATOM	1888	CD2	TYR	В	125	43.667	92.002	79.553	1.00	65.11	B B
ATOM	1889	CE2	TYR	В	125	43.653	92.959	80.564	1.00	65.11	В
ATOM	1890	CZ	TYR	В	125	44.817	93.226	81.274	1.00	65.11	В
ATOM	1891	ОН	TYR	В	125	44.804	94.184	82.269	1.00	65.11	В
ATOM	1892	С	TYR	В	125	44.614	92.050	76.377	1.00	71.65	В
ATOM	1893	0	TYR	В	125	45.065	93.180	76.554	1.00	71.65	В
ATOM	1894	Ν	GLY	В	126	43.423	91.820	75.835	1.00	84.06	·B
ATOM	1895	CA	GLY	В	126	42.585	92.919	75.396	1.00	84.06	В
ATOM	1896	C	GLY	В	126	41.552	93.336	76.420	1.00	84.06	В
ATOM	1897	0	GLY	В	126	40.406	92.894	76.367	1.00	84.06	В
ATOM	1898	N.	SER	В	127	41.957	94.192	77.352	1.00	89.43	В
MOTA	1899	CA	SER	В	127	41.062	94.679	78.396	1.00	89.43	В
ATOM ATOM	1900	CB	SER	В	127	41.814	95.605	79.349	1.00	70.88	В
ATOM	1901 1902	OG C	SER	В	127	40.914	96.244	80.234	1.00	70.88	В
ATOM	1903	Ö	SER SER	B B	127	39.873	95.426	77.812	1.00	89.43	В
ATOM	1904	N	GLU	В	127 128	39.978	96.055	76.762	1.00	89.43	В
ATOM	1905	CA	GLU	В	128	38.743 37.529	95.357	78.504	1.00	90.28	В
ATOM	1906	CB	GLU	В	128	36.295	96.030 95.217	78.061 78.473	1.00	90.28 100.00	В
ATOM	1907	CG	GLU	В	128	36.226	94.850	79.962	1.00 1.00	100.00	В
ATOM	1908	CD	GLU	B	128	37.227	93.769	80.367	1.00	100.00	B B
ATOM	1909	OE1	GLU	B	128	37.152	92.645	79.821	1.00	100.00	В
ATOM	1910	OE2	GLU	В	128	38.087	94.039	81.236	1.00	100.00	B
ATOM	1911	С	GLU	В	128	37.459	97.427	78.666	1.00	90.28	B
ATOM	1912	0	GLU	В	128	36.672	98.269	78.230	1.00	90.28	B
ATOM	1913	N	LYS	В	129	38.301	97.666	79.666	1.00	84.11	B
MOTA	1914	CA	LYS	В	129	38.346	98.950	80.355	1.00	84.11	В
ATOM	1915	СВ	LYS	В	129	37.762	98.797	81.763	1.00	100.00	В
ATOM	1916	CG	LYS	В	129	38,379	97.651	82.556	1.00	100.00	В
ATOM	1917	CD	LYS	В	129	37.891	97.626	83.998	1.00	100.00	В
ATOM	1918	CE	LYS	В	129	38.603	96.543	84.800	1.00	100.00	В
ATOM	1919	NZ	LYS	В	129	38.260	96.610	86.246	1.00	100.00	В
MOTA	1920	C	LYS	В	129	39.775	99.490	80.442	1.00	84.11	В
ATOM ATOM	1921 1922	0 N	LYS	В	129	40.734	98.731	80.603	1.00	84.11	В
ATOM	1922	CA	LEU	В	130	39.910	100.809	80.345	1.00	74.10	В
ATOM	1923	CB	LEU LEU	B B	130 130	41.220	101.449	80.406	1.00	74.10	В
	1027	00	LLU	_	130	41.137	102.875	79.845	1.00	62.37	В

#### WO 02/24722

ATOM		CG	LEU	В	130	42.422	103.527	79.309	1.00	62.37	В
ATOM	1926	CD1	LEU	В	130	42.224	105.034	79.301	1.00	62.37	В
ATOM	1927	CD2	LEU	В	130	43.629	103.171	80.165	1.00	62.37	В
ATOM	1928	С	LEU	В	130	41.749	101.502	81.840	1.00	74.10	В
ATOM	1929	0	LEU	В	130	41.312	102,323	82.642	1.00	74.10	В
ATOM	1930	N	THR	В	131	42.705	100.636	82.153	1.00	71,38	В
ATOM	1931	CA	THR	В	131	43.285	100.598	83.492	1.00	71.38	В
ATOM	1932	CB	THR	В	131	43.106	99.211	84.125	1.00	71.14	В
ATOM	1933	OG1	THR	В	131	43.971	98,269	83.475	1.00	71.14	В
ATOM	1934	CG2	THR	В	131	41.666	98.754	83.972	1.00	71.14	B
ATOM	1935	С	THR	В	131	44,773	100.913	83.427	1.00	71.38	В
ATOM		0	THR	В	131	45.328	101.060	82,339	1.00	71.38	В
ATOM		N	GLN	В	132	45.415	101.019	84.587	1.00	71.46	В
ATOM		CA	GLN	В	132	46.847	101.308	84.635	1.00	71.46	В
ATOM		СВ	GLN	В	132	47.331	101.378	86.080	1.00	99.65	В
ATOM		CG	GLN	В	132	46.673	102.462	86.900	1.00	99.65	В
ATOM		CD	GLN	В	132	47.210	102.513	88.312	1.00	99.65	В
ATOM		OE1	GLN	В	132	48.407	102.703	88.525	1.00	99.65	В
ATOM		NE2	GLN	В	132	46.327	102.342	89.287	1.00	99.65	В
ATOM		C	GLN	В	132	47.596	100.197	83.913	1.00	71.46	В
ATOM		0	GLN	В	132	48.718	100.381	83.432	1.00	71.46	В
ATOM		N	GLU	В	133	46.953	99.039	83.840	1.00	99.82	В
ATOM		CA	GLU	В	133	47.532	97.873	83.194	1.00	99.82	В
ATOM		CB	GLU	В	133	46.774	96.625	83.657	1.00	99.09	В
ATOM ATOM		CG	GLU	В	133	47.449	95.311	83.329	1.00	99.09	В
ATOM		CD OE1	GLU	В	133	47.139	94.236	84.353	1.00	99.09	В
ATOM		OE2	GLU GLU	B B	133 133	47.585	94.371	85.513	1.00	99.09	В
ATOM		C	GLU	В	133	46.449 47.471	93.257	84.002	1.00	99.09	В
ATOM		Ö	GLU	В	133	47.779	98.012 97.073	81.675	1.00	99.82	В
ATOM		Ň	CYS	В	134	47.093	99.198	80.943 81.209	1.00	99.82	В
ATOM		CA	CYS	В	134	46.970	99.458	79.780	1.00 1.00	83.03 83.03	B B
ATOM		СВ	CYS	B	134	45.496	99.634	79.420	1.00	84.81	В
ATOM		SG	CYS	В	134	44.431	98.314	80.031	1.00	84.81	В
ATOM	1959 (	3	CYS	В	134	47.751	100.688	79.321	1.00	83.03	В
ATOM		C	CYS	В	134	47.696	101.069	78.152	1.00	83.03	В
ATOM		N	VAL	В	135	48.474	101.308	80.245	1.00	81.69	В
ATOM		CA	VAL	В	135	49.262	102.492	79.929	1.00	81.69	В
ATOM		CB	VAL	B.	135	49.110	103.564	81.030	1.00	74.62	В
ATOM		CG1	VAL	В	135	50.025	104.746	80.744	1.00	74.62	В
ATOM		CG2	VAL	В	135	47.660	104.011	81.110	1.00	74.62	В
ATOM	1966		VAL	В	135	50.733	102.120	79.792	1.00	81.69	В
ATOM		)	VAL	В	135	51.384	101.750	80.772	1.00	81.69	В
ATOM		<b>i</b>	PHE	В	136	51.257	102.227	78.574	1.00	71.72	В
ATOM		CA	PHE	В	136	52.648	101.880	78.327	1.00	71.72	В
MOTA		CB	PHE	В	136	52.760	100.917	77.142	1.00	73.76	В
ATOM ATOM		CG CD4	PHE	В	136	51.818	99.757	77.213	1.00	73.76	В
ATOM		CD1 CD2	PHE	В	136	50.474	99.913	76.877	1.00	73.76	В
ATOM		DE1	PHE PHE	B B	136 136	52.269	98.505	77.622	1.00	73.76	В
ATOM		DE2	PHE	В	136	49.593	98.837	76.944	1.00	73.76	В
ATOM		ZZ	PHE	В	136	51.394 50.054	97.421 97.587	77.694	1.00	73.76	В
ATOM	1977		PHE	В	136	53.537	103.077	77.353 78.054	1.00	73.76	В
ATOM	1978		PHE	В	136	53.069	103.077	78.054 77.690	1.00 1.00	71.72 71.72	В
ATOM	1979 N		ARG	В	137	54.833	102.863	78.234	1.00	76.13	B B
ATOM		A	ARG	В	137	55.828	103.886	77.984	1.00	76.13 76.13	В
ATOM		B	ARG	В	137	57.055	103.664	78.865	1.00	99.50	В
											0

WO 02/24722 PCT/IL01/00871

ATOM	1982	CG	ARG	В	137	56.813	103.777	80.354	1.00	99.50	В
ATOM	1983	CD	ARG	В	137	58.113	103.522	81.104	1.00	99.50	В
ATOM	1984	NE	ARG	В	137	58.044	103.899	82.513	1.00	99.50	В
ATOM	1985	CZ	ARG	В	137	59.089	103.889	83.335	1.00	99.50	В
ATOM	1986	NH1	ARG	В	137	60.280	103.518	82.886	1.00	99.50	В
ATOM	1987	NH2	ARG	В	137	58.947	104.257	84.602	1.00	99.50	В
ATOM ATOM	1988 1989	CO	ARG ARG	B B	137 137	56.242	103.777	76.520	1.00	76.13	В
ATOM	1990	N	GLU	В	137	57.010 55.718	102.883 104.672	76.152	1.00	76.13	В
ATOM	1991	CA	GLU	В	138	56.057	104.672	75.688 74.272	1.00 1.00	74.09 74.09	B B
ATOM	1992	CB	GLU	В	138	54.977	105.409	73.463	1.00	67.11	В
ATOM	1993	ĊĞ	GLU	В	138	55.318	105.569	71.977	1.00	67.11	В
ATOM	1994	CD	GLU	В	138	54.322	106.440	71.226	1.00	67.11	В
ATOM	1995	OE1	GLU	В	138	54.216	107.641	71.556	1.00	67.11	В
ATOM	1996	OE2	GLU	В	138	53.647	105.926	70.308	1.00	67.11	B
ATOM	1997	С	GLU	В	138	57.370	105.436	74.122	1.00	74.09	В
ATOM	1998	0	GLU	В	138	57.421	106.642	74.346	1.00	74.09	В
ATOM	1999	N.	GLN	В	139	58.429	104.727	73.746	1.00	83.30	В
ATOM	2000	CA	GLN	В	139	59.731	105.360	73.576	1.00	83.30	В
MOTA	2001	CB	GLN	В	139	60.644	104.996	74.746	1.00	89.59	В
ATOM ATOM	2002	CG	GLN	В	139	60.327	105.773	76.003	1.00	89.59	В
ATOM	2003 2004	CD OE1	GLN GLN	B B	139	61.046	105.237	77.213	1.00	89.59	В
ATOM	2004	NE2	GLN	В	139 139	62.271 60.286	105.119 104.908	77.224	1.00	89.59	В
ATOM	2006	C	GLN	В	139	60.416	104.908	78.248 72.253	1.00	89.59	В
ATOM	2007	ŏ	GLN	В	139	60.384	103.034	71.771	1.00 1.00	83.30 83.30	B B
ATOM	2008	N	PHE	В	140	61.041	106.053	71.675	1.00	80.44	В
ATOM	2009	CA	PHE	В	140	61.734	105.930	70.401	1.00	80.44	В
ATOM	2010	СВ	PHE	В	140	62.177	107.323	69.938	1.00	83.11	В
ATOM	2011	CG	PHE	В	140	62.947	107.322	68.652	1.00	83.11	В
ATOM	2012	CD1	PHE	В	140	62.299	107.126	67.437	1.00	83.11	В
ATOM	2013	CD2	PHE	В	140	64.328	107.502	68.656	1.00	83.11	В
ATOM	2014	CE1	PHE	В	140	63.017	107.110	66.243	1.00	83.11	В
ATOM	2015	CE2	PHE	В	140	65.054	107.486	67.470	1.00	83.11	В
ATOM ATOM	2016	CZ C	PHE	В	140	64.396	107.290	66.260	1.00	83.11	В
ATOM	2017 2018	Ö	PHE PHE	В	140	62.948	105.001	70.461	1.00	80.44	В
ATOM	2019	N	GLU	B B	140 141	63.762 63.059	105.090	71.380	1.00	80.44	В
ATOM	2020	CA	GLU	В	141	64.193	104.109 103.189	69.480 69.385	1.00 1.00	81.14	В
ATOM	2021	СВ	GLU	В	141	63.721	103.109	69.115	1.00	81.14 72.53	B B
ATOM	2022	CG	GLU	В	141	63.916	100.784	70.281	1.00	72.53	В
ATOM	2023	CD	GLU	B	141	65.369	100.650	70.732	1.00	72.53	В
ATOM	2024	OE1	GLU	В	141	65.877	101.559	71.427	1.00	72.53	В
ATOM	2025	OE2	GLU	В	141	66.005	99.631	70.386	1.00	72.53	В
ATOM	2026.	С	GLU	В	141	65.070	103.659	68.226	1.00	81.14	В
ATOM	2027	0	GLU	В	141	66.069	104.353	68.426	1.00	81.14	В
ATOM	2028	N	GLU	В	142	64.684	103.277	67.012	1.00	71.75	В
MOTA	2029	CA	GLU	В	142	65.405	103.673	65.806	1.00	71.75	В
MOTA	2030	CB	GLU	В	142	66.612	102.751	65.569	1.00	100.00	В
ATOM ATOM	2031 2032	CG CD	GLU	В	142	66.381	101.274	65.867	1.00	100.00	В
ATOM	2032	OE1	GLU GLU	В	142	65.314	100.650	64.990	1.00	100.00	В
ATOM	2033	OE2	GLU	B B	142 142	65.443 64.347	100.718 100.085	63.748 65.543	1.00	100.00	В
ATOM	2035	C	GLU	В	142	64.482	103.677	65.543 64.587	1.00 1.00	100.00 71.75	В
ATOM	2036	ŏ	GLU	В	142	63.506	103.077	64.532	1.00	71.75 71.75	B B
ATOM	2037	Ň	ASN	В	143	64.791	104.541	63.622	1.00	62.98	В
ATOM	2038	CA	ASN	В	143	64.003	104.678	62.393	1.00	62.98	В

WO 02/24722

ATOM	2039	СВ	ASN	В	143	64.396	103.591	61.392	1.00	76.05 B
ATOM	2040	CG	ASN	В	143	65.845	103.711	60.954	1.00	76.05 B
ATOM	2041	OD1	ASN	В	143	66.275	103.711	60.494		
ATOM	2042								1.00	76.05 B
ATOM		ND2	ASN	В	143	66.606	102.631	61.099	1.00	76.05 B
	2043	C	ASN	В	143	62.500	104.655	62.652	1.00	62.98 B
ATOM	2044	0	ASN	В	143	61.733	103.988	61.946	1.00	62.98 B
ATOM	2045	N	TRP	В	144	62.111	105.399	63.687	1.00	52.62 B
ATOM	2046	CA	TRP	В	144	60.731	105.559	64.131	1.00	52.62 B
ATOM	2047	СВ	TRP	В	144	59.920	106.265	63.042	1.00	53.19 B
ATOM	2048	CG	TRP	В	144	60.536	107.595	62.776	1.00	53.19 B
ATOM	2049	CD2	TRP	В	144	60.559	108.711	63.674	1.00	53.19 B
ATOM	2050	CE2	TRP	В	144	61.430	109.677	63.122	1.00	53.19 B
MOTA	2051	CE3	TRP	В	144	59.934	108.986	64.899	1.00	53.19 B
<b>ATOM</b>	2052	CD1	TRP	В	144	61.361	107.925	61.735	1.00	53.19 B
ATOM	2053	NE1	TRP	В	144	61.906	109.172	61.940	1.00	53.19 B
ATOM	2054	CZ2	TRP	B	144	61.694	110.900	63.757	1.00	53.19 B
ATOM	2055	CZ3	TRP	В	144	60.200	110.203	65.531	1.00	53.19 B
ATOM	2056	CH2	TRP	B	144	61.071	111.143	64.957	1.00	
ATOM	2057	C	TRP	В	144	60.014				53.19 B
ATOM	2058	ŏ	TRP	В			104.331	64.664	1.00	52.62 B
ATOM	2059				144	58.783	104.248	64.653	1.00	52.62 B
	2060	N	TYR	В	145	60.801	103.378	65.143	1.00	62.69 B
MOTA	_	CA	TYR	В	145	60.252	102.189	65.763	1.00	62.69 B
ATOM	2061	CB	TYR	· B	145	61.138	100.973	65.509	1.00	63.90 B
ATOM	2062	CG	TYR	В	145	60.758	100.167	64.289	1.00	63.90 B
ATOM	2063	CD1	TYR	В	145	61.248	100.495	63.021	1.00	63.90 B
ATOM	2064	CE1	TYR	В	145	60.900	99.737	61.897	1.00	63.90 B
ATOM	2065	CD2	TYR	В	145	59.908	99.066	64.403	1.00	63.90 B
ATOM	2066	CE2	TYR	В	145	59.554	98.308	63.293	1.00	63.90 B
ATOM	2067	CZ	TYR	В	145	60.052	98.644	62.045	1.00	63.90 B
ATOM	2068	ОН	TYR	В	145	59.703	97.877	60.957	1.00	63.90 B
ATOM	2069	С	TYR	В	145	60.285	102.535	67.246	1.00	62.69 B
ATOM	2070	0	TYR ·	В	145	61.300	103.030	67.739	1.00	62.69 B
ATOM	2071	N	ASN	В	146	59.183	102.307	67.954	1.00	75.32 B
ATOM	2072	CA	ASN	В	146	59.142	102.603	69.383	1.00	75.32 B
ATOM	2073	CB	ASN	В	146	57.928	103.481	69.738	1.00	54.84 B
ATOM	2074	CG	ASN	В	146	57.894	104.799	68.978	1.00	54.84 B
ATOM	2075	OD1	ASN	В	146	58.874	105.548	68.945	1.00	54.84 B
ATOM	2076	ND2	ASN	В	146	56.747	105.094	68.376	1.00	54.84 B
ATOM	2077	C	ASN	B	146	59.036	101.310	70.185	1.00	
ATOM	2078	ŏ	ASN	B	146	58.671	100.264	69.647		75.32 B
ATOM	2079	Ň	THR	В	147	59.367	100.204	71.472	1.00	75.32 B
ATOM	2080	CA	THR	В	147	59.253	101.369		1.00	70.49 B
ATOM	2081	CB	THR	В	147			72.373	1.00	70.49 B
ATOM	2082	OG1	THR	В		60.500	100.064	73.272	1.00	68.35 B
ATOM	2083	CG2	THR		147	60.703	101.241	74.065	1.00	68.35 B
ATOM	2084			В	147	61.726	99.809	72.433	1.00	68.35 B
		C	THR	В	147	58.059	100.573	73.255	1.00	70.49 B
ATOM	2085	0	THR	В	147	57.739	101.745	73.450	1.00	70.49 B
ATOM	2086	N	TYR	В	148	57.396	99.550	73.776	1.00	78.77 B
ATOM	2087	CA	TYR	В	148	56.236	99.770	74.628	1.00	78.77 B
ATOM	2088	CB	TYR	В	148	54.957	99.432	73.858	1.00	75.53 B
ATOM	2089	CG	TYR	В	148	54.687	100.376	72.711	1.00	75.53 B
ATOM	2090	CD1	TYR	В	148	54.010	101.577	72.914	1.00	75.53 B
ATOM	2091	CE1	TYR	В	148	53.818	102.484	71.868	1.00	75.53 B
ATOM	2092	CD2	TYR	В	148	55.165	100.099	71.430	1.00	75.53 B
ATOM	2093	CE2	TYR	В	148	54.982	101.001	70.377	1.00	75.53 B
ATOM	2094	CZ	TYR	В	148	54.311	102.189	70.604	1.00	75.53 B
ATOM	2095	ОН	TYR	В	148	54.144	103.085	69.572	1.00	75.53 B
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ATOM	2096	C	TYR	В	148	56.325	98.937	75.898	1.00	78.77	В
ATOM	2097	ŏ	TYR	В	148	56.066	97.735	75.884	1.00	78.77	В
ATOM	2098	Ň	SER	В	149	56.692	99.586	76.998	1.00	76.62	В
ATOM	2099	CA	SER	В	149	56.818	98.906	78.280	1.00	76.62	В
ATOM	2100	CB	SER	В	149	58.176	99.225	78.913	1.00	85.78	В
ATOM	2101	ÖĞ	SER	В	149	58.304	100.610	79.188	1.00	85.78	В
ATOM	2102	Č	SER	В	149	55.701	99.308	79.240	1.00	76.62	В
ATOM	2103	ŏ	SER	В	149	55.252	100.451	79.233	1.00	76.62	
ATOM	2104	N	SER	В	150	55.254	98.356	80.055	1.00		В
ATOM	2105	CA	SER	В	150	54.204	98.607			83.08	В
ATOM	2106	CB	SER	В	150	53.905		81.037	1.00	83.08	В
ATOM	2107	OG	SER	В	150		97.326	81.827	1.00	82.51	В
ATOM	2108	C	SER	В	150	52.820 54.720	97.497	82.725	1.00	82.51	В
ATOM	2109	Ö	SER	В			99.686	81.982	1.00	83.08	В
ATOM	2110	N	ASN		150	55.834	99.582	82.488	1.00	83.08	В
ATOM	2111	CA	ASN	В	151	53.925	100.726	82.212	1.00	93.75	В
ATOM	2112	CB	ASN	В	151	54.348	101.800	83.103	1.00	93.75	В
ATOM	2113	CG		В	151	53.595	103.093	82.787	1.00	72.85	В
ATOM	2114	OD1	ASN	В	151	54.243	104.313	83.424	1.00	72.85	В
ATOM			ASN	В	151	53.589	105.332	83.655	1.00	72.85	В
	2115	ND2	ASN	В	151	55.538	104.218	83.699	1.00	72.85	В
ATOM	2116	Ç	ASN	В	151	54.079	101.411	84.554	1.00	93.75	В
ATOM	2117	0	ASN	В	151	54.269	102.213	85.470	1.00	93.75	В
ATOM	2118	N	LEU	В	152	53.637	100.173	84.753	1.00	100.00	В
ATOM	2119	CA	LEU	В	152	53.325	99.667	86.085	1.00	100.00	В
ATOM	2120	CB	LEU	В	152	51.912	99.085	86.092	1.00	65.90	В
ATOM	2121	CG	LEU	В	152	51.418	98.477	87.404	1.00	65.90	В
ATOM	2122	CD1	LEU	В	152	51.607	99.481	88.535	1.00	65.90	В
ATOM	2123	CD2	LEU	В	152	49.952	98.090	87.265	1.00	65.90	В
MOTA	2124	C	LEU	В	152	54.313	98.604	86.561	1.00	100.00	В
ATOM	2125	0	LEU	В	152	55.144	98.852	87.439	1.00	100.00	В
ATOM	2126	N	TYR	В	153	54.213	97.420	85.971	1.00	97.40	В
ATOM	2127	CA	TYR	В	153	55.072	96.300	86.323	1.00	97.40	В
ATOM	- 2128	СВ	TYR	В	153	54.394	95.004	85.896	1.00	68.51	В
ATOM	2129	CG	TYR	В	153	52.961	94.909	86.367	1.00	68.51	В
ATOM	2130	CD1	TYR	В	153	52.654	94.844	87.727	1.00	68.51	В
ATOM	2131	CE1	TYR	В	153	51.335	94.770	88.166	1.00	68.51	В
ATOM	2132	CD2	TYR	В	153	51.909	94.900	85.455	1.00	68.51	В
ATOM	2133	CE2	TYR	В	153	50.586	94.827	85.883	1.00	68.51	В
ATOM	2134	CZ	TYR	В	153	50.308	94.763	87.238	1.00	68.51	В
ATOM	2135	ОН	TYR	В	153	49.004	94.697	87.659	1.00	68.51	В
ATOM	2136	С	TYR	В	153	56.449	96.407	85.676	1.00	97.40	В
ATOM	2137	0	TYR	В	153	56.563	96.618	84.470	1.00	97.40	В
ATOM	2138	N	LYS	В	154	57.490	96.252	86.488	1.00	92.05	В
ATOM	2139	CA	LYS	В	154	58.868	96,332	86.012	1.00	92.05	В
ATOM	2140	CB	LYS	В	154	59.527	97.614	86.529	1.00	97.83	В
ATOM	2141	CG	LYS	В	154	59.504	97.750	88.049	1.00	97.83	В
ATOM	2142	CD	LYS	В	154	60.187	99.027	88.521	1.00	97.83	В
ATOM	2143	CE	LYS	В	154	61.681	99.012	88.225	1.00	97.83	В
ATOM	2144	NZ	LYS	В	154	62.347	100.261	88.692	1.00	97.83	В
ATOM	2145	С	LYS	В	154	59.680	95.126	86.479	1.00	92.05	В
ATOM	2146	0	LYS	В	154	59.207	94.325	87.289	1.00	92.05	В
ATOM	2147	N	HIS	В	155	60.900	94.996	85.963	1.00	99.49	В
ATOM	2148	CA	HIS	B	155	61.768	93.891	86.355	1.00	99.49	В
MOTA	2149	CB	HIS	В	155	63.026	93.844	85.478	1.00	100.00	В
ATOM	2150	CG	HIS	В	155	63.051	92.695	84.513	1.00	100.00	В
ATOM	2151	CD2	HIS	В	155	63.943	91.689	84.346	1.00	100.00	
ATOM	2152	ND1	HIS	B	155	62.065	92.491	83.569	1.00	100.00	B B
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WO 02/24722

# PCT/IL01/00871

ATOM	2153	CE1	HIS	В	155	62.349		82.864	1.00	100.00	В
ATOM	2154	NE2	HIS	В	155	63.483	90.905	83.315	1.00	100,00	В
ATOM	2155	С	HIS	В	155	62,155	94.065	87.817	1.00	99.49	В
ATOM	2156	0	HIS	В	155	63.017	94.881	88.158	1.00	99.49	В
ATOM	2157	Ň	VAL	В	156	61.491	93.289	88.668			
ATOM	2158	CA	VAL	В					1.00	100.00	В
					156	61.703		90.109	1.00	100.00	В
ATOM	2159	СВ	VAL	В	156	61.149	92.012	90.760	1.00	100.00	В
ATOM	2160	CG1	VAL	В	156	59.632	91.963	90.610	1.00	100.00	В
ATOM	2161	CG2	VAL	В	156	61.776	90.780	90.107	1.00	100.00	В
ATOM	2162	С	VAL	В	156	63.159	93.506	90.537	1.00	100.00	В
ATOM	2163	0	VAL	В	156	63.501	94.514	91.162	1.00		
ATOM	2164	Ň	ASP	В	157	64.014	92.550			100.00	В
ATOM	2165	CA	ASP					90.188	1.00	100.00	В
ATOM				В	157	65.421	92.606	90.565	1.00	100.00	В
_	2166	СВ	ASP	· B	157	66.048	91.213	90.427	1.00	100.00	В
ATOM	2167	CG	ASP	В	157	67.324	91.058	91.248	1.00	100.00	В
ATOM	2168	OD1	ASP	В	157	68.264	91.859	91.054	1.00	100.00	В
ATOM	2169	OD2	ASP	В	157	67.386	90.132	92.090	1.00	100.00	В
ATOM	2170	С	ASP	В	157	66.245	93.623	89.770	1.00	100.00	В
ATOM	2171	0	ASP	В	157	66.603	94.685	90.287			
ATOM	2172	Ň	THR	В	158				1.00	100.00	В
ATOM	2173	CA				66.541	93.288	88.515	1.00	99.85	В
			THR	В	158	67.345	94.142	87.636	1.00	99.85	В
ATOM	2174	СВ	THR	В	158	67.363	93.595	86.179	1.00	100.00	В
ATOM	2175	OG1	THR	В	158	66.032	93.584	85.643	1.00	100.00	В
ATOM	2176	CG2	THR	В	158	67.926	92.180	86.148	1.00	100.00	В
ATOM	2177	С	THR	В	158	66.922	95.611	87.583	1.00	99.85	В
ATOM	2178	0	THR	В	158	67.757	96.510	87.708	1.00	99.85	
ATOM	2179	N	GLY	B	159	65.628	95.851	87.398			В
ATOM	2180	CA	GLY	В	159	65.143			1.00	98.79	В
ATOM	2181	Č.	GLY	В			97.215	87.309	1.00	98.79	В
ATOM	2182	ŏ			159	64.874	97.567	85.857	1.00	98.79	В
			GLY	В	159	64.864	98.739	85.477	1.00	98.79	В
ATOM	2183	N	ARG	В	160	64.670	96.533	85.044	1.00	100.00	В
ATOM	2184	CA	ARG	В	160	64.385	96.695	83.623	1.00	100.00	В
ATOM	2185	СВ	ARG	В	160	64.856	95.463	82.843	1.00	100.00	В
ATOM	2186	CG	ARG	В	160	66.319	95.089	83.074	1.00	100.00	В
ATOM	2187	CD	ARG	В	160	67.266	96.199	82.645	1.00	100.00	В
ATOM	2188	NE	ARG	В	160	68.664	95.831	82.848			
ATOM	2189	CZ	ARG	В	160	69.700	96.603		1.00	100.00	В
ATOM	2190	NH1	ARG	В	160			82.527	1.00	100.00	В
ATOM	2191	NH2				69.503	97.798	81.980	1.00	100.00	В
ATOM	2192		ARG	В	160	70.937	96.181	82.759	1:00	100.00	В
		C	ARG	В	160	62.876	96.852	83.479	1.00	100.00	В
ATOM	2193	0	ARG	В	160	62.174	97.018	84.475	1.00	100.00	В
ATOM	2194	N	ARG	В	161	62.369	96.794	82.252	1.00	84.80	В
ATOM	2195	CA	ARG	В	161	60.934	96.941	82.043	1.00	84.80	B
ATOM	2196	CB	ARG	В	161	60.641	98.262	81.329	1.00	84.54	В
ATOM	2197	CG	ARG	В	161	60.138	99.356	82.250	1.00	84.54	
ATOM	2198	CD	ARG	B	161	58.962	98.844	83.063			В
ATOM	2199	NE	ARG	В	161				1.00	84.54	В
ATOM	2200	CZ				58.217	99.902	83.739	1.00	84.54	В
			ARG	В	161	58.747	100.802	84.562	1.00	84.54	В
ATOM	2201	NH1	ARG	В	161	60.049	100.794	84.826	1.00	84.54	В
ATOM	2202	NH2	ARG	В٠	161	57.963	101.704	85.136	1.00	84.54	В
ATOM	2203	С	ARG	В	161	60.290	95.790	81.279	1.00	84.80	В
ATOM	2204	0	ARG	В	161	60.959	95.070	80.539	1.00	84.80	В
ATOM	2205	N	TYR	В	162		95.620	81.471	1.00	99.33	В
ATOM	2206	CA	TYR	В	162	58.242	94.563	80.792	1.00	99.33	
ATOM	2207	CB	TYR	B	162	57.028	94.124	81.623			В
ATOM	2208	CG	TYR	В	162	57.353	93.438		1.00	100.00	В
ATOM	2209	CD1						82.938	1.00	100.00	В
, ti Oivi	2200	JD 1	TYR	В	162	58.674	93.155	83.303	1.00	100.00	В

WO 02/24722 PCT/IL01/00871

ATOM	2210	CE1	TYR	В	162	58.971	92.531	84.519	1.00	100.00	В
ATOM	2211	CD2	TYR	В	162	56.335	93.076	83.822	1.00	100.00	В
ATOM	2212	CE2	TYR	В	162	56.619	92.452	85.040	1.00	100.00	В
ATOM	2213	CZ	TYR	В	162	57.938	92.183	85.383	1.00	100.00	В
ATOM	2214	OH	TYR	В	162	58.222	91.582	86.592	1.00	100.00	В
ATOM	2215	C	TYR	В	162	57.765	95.068	79.436	1.00	99,33	В
ATOM	2216	0	TYR	В	162	56.669	95.618	79.320	1.00	99.33	В
ATOM	2217	N	TYR	В	163	58.590	94.873	78.412	1.00	78.76	В
ATOM	2218	CA	TYR	В	163	58.261	95.322	77.064	1.00	78.76	В
MOTA	2219	CB	TYR	В	163	59.527	95.372	76.212	1.00	72.85	В
ATOM ATOM	2220 2221	CG	TYR	В	163	60.507	96.411	76.674	1.00	72.85	В
ATOM	2222	CD1 CE1	TYR TYR	B B	163	60.239	97.766	76.505	1.00	72.85	В
ATOM	2223	CD2	TYR	В	163 163	61.119	98.737	76.969	1.00	72.85	В
ATOM	2224	CE2	TYR	В	163	61.684 62.572	96.048 97.011	77.318	1.00	72.85	В
ATOM	2225	CZ	TYR	B.	_	62.282	98.352	77.788 77.610	1.00 1.00	72.85 72.85	В
ATOM	2226	OH	TYR	В	163	63.150	99.309	78.072	1.00	72.85	B B
ATOM	2227	Č	TYR	В	163	57.224	94.469	76.352	1.00	78.76	В
ATOM	2228	Ö	TYR	В	163	57.173	93.255	76.532	1.00	78.76	В
ATOM	2229	Ň	VAL	В	164	56.393	95.123	75.546	1.00	77.64	В
ATOM	2230	CA	VAL	В	164	55.382	94.429	74.762	1.00	77.64	В
ATOM	2231	СВ	VAL	В	164	54.337	95.413	74.198	1.00	73.41	В
ATOM	2232	CG1	VAL	В	164	53.285	94.660	73.400	1.00	73.41	В
ATOM	2233	CG2	VAL	В	164	53.689	96.180	75.331	1.00	73.41	В
ATOM	2234	С	VAL	В	164	56.169	93.814	73.609	1.00	77.64	В
ATOM	2235	0	VAL	В	164	57.190	94.367	73.191	1.00	77.64	В
ATOM	2236	N	ALA	В	165	55.721	92.677	73.093	1.00	91.04	В
ATOM	2237	CA	ALA	В	165	56.459	92.055	72.003	1.00	91.04	В
ATOM	2238	СВ	ALA	В	165	57.794	91.527	72.528	1.00	97.54	В
ATOM ATOM	2239	C	· ALA	В	165	55.708	90.940	71.293	1.00	91.04	В
ATOM	2240 2241	O N	ALA	В	165	54.668	90.474	71.758	1.00	91.04	В
ATOM	2241	CA	LEU LEU	B B	166 166	56.255	90.530	70.153	1.00	99.59	В
ATOM	2243	CB	LEU	В	166	55.686 54.923	89.458	69.348	1:00	99.59	В
ATOM	2244	CG	LEU	В	166	53.622	90.031 90.784	68.151 68.447	1.00 1.00	77.78	В
ATOM	2245	CD1	LEU	В	166	53.009	91.293	67.148	1.00	77.78 77.78	B B
ATOM	2246	CD2	LEU	В	166	52.649	89.860	69.161	1.00	77.78 77.78	В
ATOM	2247	C	LEU	B	166	56.813	88.546	68.863	1.00	99.59	В
ATOM	2248	0	LEU	В	166	57.777	89.008	68.246	1.00	99.59	В
ATOM	2249	N	ASN	В	167	56.689	87.254	69.157	1.00	100.00	В
ATOM	2250	CA	ASN	В	167	57.695	86.275	68.759	1.00	100.00	B
MOTA	2251	CB	ASN	В	167	57.370	84.904	69.363	1.00	90.34	В
ATOM	2252	CG	ASN	В	167	57.493	84.888	70.882	1.00	90.34	В
ATOM	2253	OD1	ASN	В	167	58.570	85.131	71.433	1.00	90.34	В
ATOM	2254	ND2	ASN	В	167	56.389	84.601	71.563	1.00	90.34	В
ATOM	2255	C	ASN	В	167	57.782	86.171	67.242	1.00	100.00	В
ATOM	2256	0	ASN	В	167	56.869	86.596	66.529	1.00	100.00	В
ATOM	2257	N	LYS	В	168	58.882	85.602	66.753	1.00	100.00	В
MOTA	2258	CA	LYS	В	168	59.104	85.457	65.318	1.00	100.00	В
ATOM ATOM	2259 2260	CB	LYS	В.	168	60.461	84.798	65.061	1.00	100.00	В
ATOM	2261	CG CD	LYS	В	168	61.659	85.638	65.477	1.00	100.00	В
ATOM	2262	CE	LYS LYS	В	168 168	62.957	84.989	65.012	1.00	100.00	В
ATOM	2263	NZ	LYS	B B	168	64.167	85.849 85.264	65.342	1.00	100.00	В
ATOM	2264	C	LYS	В	168	65.428 58.016	85.264 84.682	64.802 64.571	1.00 1.00	100.00	В
ATOM	2265	ŏ	LYS	В	168	58.094	84.524	63.351	1.00	100.00 100.00	B B
ATOM	2266	Ň	ASP	В	169	57.005	84.204	65.293	1.00	95.71	В
				_		2	J-7.2-U-7	JU.200	1.50	00.7	

WO 02/24722 PCT/IL01/00871

2267	CA	ASP	В	169	55.920	83,454	64.665	1.00	95.71	В
2268	CB	ASP	В	169	55.884	82.019	65.202	1.00	100.00	В
			В	169	55.584	81.957	66.685	1.00	100.00	В
										В
										В
										В
										В
										B B
										В
										В
2278	N	THR	_							В
2279	CA	THR	В	171	52.591	85.140	68.932	1.00		B
2280	CB	THR	В	171	52.821	83.671	69.364	1.00	99.83	В
				171		83.418	69.474	1.00	99.83	В
									99.83	В
										В
										В
										В
										B B
										В
2289	CG									В
2290	С	PRO	В	172						В
	0	PRO	В	172	53.400	85.601	73.405	1.00	89.17	В
		ARG		173	54.665	87.464	73.392	1.00	79.55	В
						86.962		1.00	79.55	В
										В
										В
										В
										B B
										В
2300	NH2	ARG		173						В
2301	С	ARG	В	173	55.348	87.394				В
	0	ARG	В	173	54.252	87.889	76.027	1.00	79.55	В
				174		87.193	76.674	1.00	87.53	В
							78.079	1.00	87.53	В
										В
										В
										B B
										В
2310		GLU								В
2311	0	GLU		174	58.006					В
2312	N	GLY	В	175	56.144	89.787	79.062			В
	CA		В	175	56.747	91.062	79.409	1.00	84.47	В
							80.136	1.00	84.47	В
									84.47	В
										В
										В
										В
										В
										B B
2322	Ö	THR	В	176						В
2323	N	ARG	В	177	60.043	88.234	79.658	1.00	100.00	В
	2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2299 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322	2268 CB 2269 CG 2270 OD1 2271 OD2 2272 C 2273 O 2274 N 2275 CA 2276 C 2277 O 2278 N 2279 CA 2280 CB 2281 OG1 2282 CG2 2283 C 2284 O 2285 N 2286 CD 2287 CA 2288 CB 2289 CG 2291 O 2292 N 2293 CA 2294 CB 2290 C 2291 O 2292 N 2293 CA 2294 CB 2297 NE 2298 CZ 2291 O 2292 N 2293 CA 2294 CB 2297 NE 2298 CZ 2291 O 2291 O 2292 N 2293 CA 2294 CB 2290 C 2291 O 2291 O 2292 N 2293 CA 2294 CB 2290 C 2291 O 2291 O 2292 N 2293 CA 2294 CB 2295 CG 2290 CD 2291 O 2310 C 2311 C 2302 O 2303 N 2304 CA 2305 CB 2306 CG 2307 CD 2308 OE1 2309 OE2 2311 O 2312 N 2313 CA 2314 C 2315 O 2316 N 2317 CA 2318 CB 2319 OG1 2320 CG2 2321 C 2322 O	2268         CB         ASP           2269         CG         ASP           2270         OD1         ASP           2271         OD2         ASP           2272         C         ASP           2273         O         ASP           2274         N         GLY           2275         CA         GLY           2277         O         GLY           2278         N         THR           2279         CA         THR           2280         CB         THR           2281         OG1         THR           2282         CG2         THR           2283         C         THR           2284         O         THR           2285         N         PRO           2286         CD         PRO           2287         CA         PRO           2289         CG         PRO           2291         O         PRO           2292         N         ARG           2293         CA         ARG           2294         CB         ARG           2295         CG         ARG	2268         CB         ASP         B           2269         CG         ASP         B           2270         OD1         ASP         B           2271         OD2         ASP         B           2272         C         ASP         B           2273         O         ASP         B           2274         N         GLY         B           2275         CA         GLY         B           2276         C         GLY         B           2277         O         GLY         B           2278         N         THR         B           2279         CA         THR         B           2280         CB         THR         B           2281         OG1         THR         B           2282         CG2         THR         B           2283         C         THR         B           2284         O         THR         B           2285         N         PRO         B           2286         CD         PRO         B           2292         N         ARG         B           2293	2268         CB         ASP         B         169           2270         OD1         ASP         B         169           2271         OD2         ASP         B         169           2271         OD2         ASP         B         169           2273         O         ASP         B         169           2274         N         GLY         B         170           2275         CA         GLY         B         170           2276         C         GLY         B         170           2277         O         GLY         B         170           2276         C         GLY         B         170           2277         O         GLY         B         170           2278         N         THR         B         171           2279         CA         THR         B         171           2280         CB         THR         B         171           2281         OG1         THR         B         171           2282         CG2         THR         B         171           2285         CM         PRO         B	2268         CB         ASP         B         169         55.884           2269         CG         ASP         B         169         55.584           2270         OD1         ASP         B         169         56.304           2271         OD2         ASP         B         169         54.652           2273         O         ASP         B         169         53.521           2274         N         GLY         B         170         54.560           2275         CA         GLY         B         170         52.538           2276         C         GLY         B         170         52.538           2277         O         GLY         B         170         52.538           2277         O         GLY         B         170         52.538           2277         CA         THR         B         171         52.249           2280         CB         THR         B         171         52.259           2281         OG1         THR         B         171         52.229           2281         OG1         THR         B         171         52.259	2268         CB         ASP         B         169         55.884         82.019           2269         CG         ASP         B         169         55.584         81.957           2270         OD1         ASP         B         169         56.304         82.615           2271         OD2         ASP         B         169         54.525         84.111           2273         O         ASP         B         169         54.525         84.111           2273         O         ASP         B         169         53.521         83.453           2274         N         GLY         B         170         54.560         85.408           2276         C         GLY         B         170         52.338         85.843           2277         O         GLY         B         170         55.338         85.843           2277         C         GLY         B         170         52.538         85.843           2279         CA         THR         B         171         52.251         85.641           2280         CB         THR         B         171         52.251         85.641	2268         CB         ASP         B         169         55.884         82.019         65.202           2269         CG         ASP         B         169         55.584         81.957         66.685           2271         OD2         ASP         B         169         55.584         81.243         67.069           2271         OD2         ASP         B         169         54.555         84.111         64.855           2273         O         ASP         B         169         55.521         83.453         64.736           2274         N         GLY         B         170         53.317         86.141         65.334           2276         CA         GLY         B         170         53.317         86.141         65.363           2277         O         GLY         B         170         51.312         85.440         66.607           2278         N         THR         B         171         52.253         85.441         67.661           2279         CA         THR         B         171         52.251         83.671         69.364           2281         OG1         THR         B         17	2268         CB         ASP         B         169         55.884         82.019         65.202         1.00           2270         OD1         ASP         B         169         56.304         82.615         6.685         1.00           2271         OD2         ASP         B         169         56.304         82.615         6.7467         1.00           2271         OD2         ASP         B         169         54.655         84.111         64.855         1.00           2274         N         GLY         B         170         54.560         85.408         65.156         1.00           2275         CA         GLY         B         170         53.317         86.141         65.338         1.00           2276         CA         GLY         B         170         51.312         85.408         65.156         1.00           2277         O         GLY         B         170         51.312         85.976         66.634         1.00           2278         N         THR         B         171         52.251         85.441         67.661         1.00           2281         OG1         THR         B         <	2268         CB         ASP         B         169         55.884         82.019         65.202         1.00         100.00           2270         OD1         ASP         B         169         55.584         81.957         66.685         1.00         100.00           2271         OD2         ASP         B         169         55.684         81.243         67.069         1.00         100.00           2271         C         ASP         B         169         55.584         81.243         67.069         1.00         95.71           2273         O         ASP         B         169         53.521         83.433         64.736         1.00         95.71           2275         CA         GLY         B         170         55.583         85.408         65.156         1.00         100.00           2276         C         GLY         B         170         55.388         85.943         66.607         1.00         100.00           2277         C         GLY         B         170         55.388         85.943         66.634         1.00         100.00           2278         CA         THR         B         171         52.8

WO 02/24722 PCT/IL01/00871

MOTA	2324	CA	ARG	В	177	61.009	87.672	78.723	1.00	100.00	В
<b>MOTA</b>	2325	CB	ARG	В	177	60.447	86.378	78.121	1.00	100.00	B
ATOM	2326	CG	ARG	В	177	60.135	85.295	79,151	1.00	100.00	В
ATOM	2327	CD	ARG	В	177	59.506	84.063	78.509	1.00	100.00	В
ATOM	2328	NE	ARG	В	177	60.360	83.475	77.477	1.00	100.00	В
ATOM	2329	CZ	ARG	В	177	60.046	82.392	76.769	1.00	100.00	В
ATOM	2330	NH1	ARG	В	177	58.892	81.771	76.981	1.00	100.00	В
ATOM	2331	NH2	ARG	В	177	60.882	81.933	75.844	1.00	100.00	В
ATOM	2332	С	ARG	В	177	61.398	88.635	77.599	1.00	100.00	В
MOTA	2333	0	ARG	В	177	61.624	88.209	76.466	1.00	100.00	В
ATOM	2334	N	THR	В	178	61.489	89.925	77.908	1.00	99.59	В
ATOM	2335	CA	THR	В	178	61.848	90.914	76.894	1.00	99.59	В
ATOM	2336	CB	THR	В	178	60.604	91.661	76.380	1.00	95,63	В
ATOM	2337	0G1	THR	В	178	59.917	92.260	77.485	1.00	95.63	В
ATOM	2338	CG2	THR	В	178	59.665	90.709	75.659	1.00	95.63	В
MOTA	2339	C	THR	В	178	62.854	91.961	77.362	1.00	99.59	В
ATOM ATOM	2340 2341	O N	THR	В	178	62.992	92.233	78.556	1.00	99.59	В
ATOM	2342	CA	LYS LYS	В	179	63.553	92.544	76.393	1.00	93.31	В
ATOM	2342	CB	LYS	B B	179 170	64.544	93.580	76.649	1.00	93.31	В
ATOM	2344	CG	LYS	В	179 179	65.941	92.970	76.791	1.00	99.69	В
ATOM	2345	CD	LYS	В	179	66.140 67.596	92.164 91.758	78.060	1.00	99.69	В
ATOM	2346	CE	LYS	В	179	67.807	91.756	78.236 79.567	1.00 1.00	99.69	В
ATOM	2347	NZ	LYS	В	179	69.226	90.645	79.770	1.00	99.69 99.69	В
ATOM	2348	C	LYS	В	179	64.548	94.587	75.503	1.00	93.31	B B
ATOM	2349	ŏ	LYS	В	179	64.225	94.246	74.364	1.00	93.31	В
ATOM	2350	N	ARG	В	180	64.905	95.830	75.811	1.00	100.00	В
ATOM	2351	CA	ARG	В	180	64.962	96.881	74.802	1.00	100.00	В
ATOM	2352	CB	ARG	В	180	65.285	98.229	75.460	1.00	89.36	В
ATOM	2353	CG	ARG	В	180	65.024	99.444	74.580	1.00	89.36	В
ATOM	2354	CD	ARG	В	180	65.872	100.654	74.989	1.00	89.36	В
ATOM	2355	NE	ARG	В	180	65.615	101.150	76.343	1.00	89.36	В
ATOM	2356	CZ	ARG	В	180	64.507	101.778	76.728	1.00	89.36	В
ATOM	2357	NH1	ARG	В	180	63.521	101.998	75.867	1.00	89.36	В
ATOM	2358	NH2	ARG	В	180	64.388	102.204	77.978	1.00	89.36	В
MOTA	2359	C	ARG	В	180	66.079	96.504	73.835	1.00	100.00	В
ATOM ATOM	2360	0	ARG	В	180	66.893	95.628	74.131	1.00	100.00	В
ATOM	2361 2362	N CA	HIS	В	181	66.115	97.155	72.678	1.00	99.13	В
ATOM	2363	CB	HIS HIS	B B	181	67.155	96.888	71.689	1.00	99.13	В
ATOM	2364	CG	HIS	В	181	68.531	97.000	72.348	1.00	100.00	В
ATOM	2365	CD2	HIS	В	181 181	68.758 68.160	98.306	73.044	1.00	100.00	В
ATOM	2366	ND1	HIS	В	181	69.708	99.512 98.470	72.894 74.030	1.00	100.00	В
ATOM	2367	CE1	HIS	В	181	69.683	99.720	74.030 74.459	1.00 1.00	100.00 100.00	В
ATOM	2368	NE2	HIS	В	181	68.752	100.373	73.786	1.00	100.00	B B
ATOM	2369	C	HIS	В	181	67.005	95.519	71.034	1.00	99.13	В
ATOM	2370	0	HIS	В	181	67.937	95.022	70.403	1.00	99.13	В
ATOM	2371	N	GLN	В	182	65.832	94.913	71.185	1.00	99.52	В
ATOM	2372	CA	GLN	В	182	65.567	93.609	70.589	1.00	99.52	В
ATOM	2373	CB	GLN	В	182	65.279	92.576	71.674	1.00	100.00	В
ATOM	2374	CG	GLN	В	182	66.446	92.349	72.615	1.00	100.00	В
ATOM	2375	CD	GLN	В	182	66.240	91.150	73.514	1.00	100.00	В
ATOM	2376	OE1	GLN	В	182	65.276	91.087	74.281	1.00	100.00	В
ATOM	2377	NE2	GLN	В	182	67.149	90.185	73.424	1.00	100.00	В
ATOM	2378	C	GLN	В	182	64.394	93.687	69.619	1.00	99.52	В
ATOM	2379	0	GLN	В	182	63.264	93.978	70.010	1.00	99.52	В
ATOM	2380	N	LYS	В	183	64.682	93.415	68.352	1.00	97.95	В

ATOM	2381	CA	LYS	В	183	63.693	93,469	67,285	1.00	97.95	В
ATOM	2382	СВ	LYS	В	183	64.179	92.652	66.079	1.00	100.00	В
ATOM	2383	CG	LYS	В	183	65.331	93,306	65.306	1.00	100.00	В
ATOM	2384	CD	LYS	В	183	65.524	92.667	63.929	1.00	100.00	В
ATOM	2385	CE	LYS	В	183	66.523	93.446	63,073	1.00	100.00	В
ATOM	2386	NZ	LYS	В	183	66.572	92.945	61.666	1.00	100.00	В
ATOM	2387	С	LYS	В	183	62.257	93.072	67.623	1.00	97.95	В
ATOM	2388	0	LYS	В	183	61.322	93.648	67.070	1.00	97.95	В
ATOM	2389	N	PHE	В	184	62.057	92.108	68.518	1.00	79.35	В
ATOM	2390	CA	PHE	В	184	60.687	91.709	68.840	1.00	79.35	В
ATOM	2391	CB	PHE	В	184	60.639	90.276	69.407	1.00	99.94	В
ATOM	2392	CG	PHE	В	184	61.534	90.043	70.595	1.00	99.94	В
ATOM	2393	CD1	PHE	В	184	62.917	89.946	70.441	1.00	99.94	В
ATOM	2394	CD2	PHE	В	184	60.991	89.890	71.870	1.00	99.94	В
ATOM	2395	CE1	PHE	В	184	63.744	89.695	71.539	1.00	99.94	В
ATOM	2396	CE2	PHE	В	184	61.809	89.640	72.974	1.00	99.94	В
ATOM	2397	CZ	PHE	В	184	63.187	89.542	72.809	1.00	99.94	В
ATOM ATOM	2398	CO	PHE	В	184	59.947	92.678	69,771	1.00	79.35	В
ATOM	2399		PHE	В	184	58.732	92.570	69.951	1.00	79.35	В
ATOM	2400 2401	N	THR	В	185	60.674	93.632	70.348	1.00	100.00	В
ATOM	2401	CA CB	THR	В	185	60.067	94.620	71.240	1.00	100.00	В
ATOM	2402	OG1	THR THR	B B	185	60.911	94.829	72.514	1.00	99.28	В
ATOM	2404	CG2	THR	В	185 185	62.194	95.360	72.156	1.00	99.28	В
ATOM	2405	C	THR	В	185	61.093	93.513	73.258	1.00	99.28	В
ATOM	2406	ŏ	THR	В	185	59.952 59.541	95.966 96.961	70.531	1.00	100.00	В
ATOM	2407	Ň	HIS	В	186	60.317	95.980	71.130 69.251	1.00 1.00	100.00	В
ATOM	2408	CA	HIS	В	186	60.284	97.192	68.439	1.00	80.24 80.24	B B
ATOM	2409	СВ	HIS	В	186	61.568	97.192	67.617	1.00	86.10	В
ATOM	2410	CG	HIS	В	186	62.816	97.258	68.442	1.00	86.10	В
ATOM	2411	CD2	HIS	В	186	63.000	97.110	69.776	1.00	86.10	В
ATOM	2412	ND1	HIS	В	186	64.074	97.380	67.893	1.00	86.10	В
ATOM	2413	CE1	HIS	В	186	64.980	97.309	68.853	1.00	86.10	В
ATOM	2414	NE2	HIS	В	186	64.354	97.145	70.005	1.00	86.10	B
ATOM	2415	С	HIS	В	186	59.079	97.241	67.508	1.00	80.24	В
ATOM	2416	0	HIS	В	186	58.871	96.344	66.685	1.00	80.24	B
ATOM	2417	N	PHE	В	187	58.284	98.298	67.642	1.00	64.76	В
ATOM	2418	CA	PHE	В	187	57.103	98.454	66.813	1.00	64.76	В
ATOM	2419	СВ	PHE	В	187	55.835	98.348	67.657	1.00	68.83	В
ATOM	2420	CG	PHE	В	187	55.606	96.985	68.232	1.00	68.83	В
ATOM	2421	CD1	PHE	В	187	56.423	96.496	69.249	1.00	68.83	В
MOTA	2422	CD2	PHE	В	187	54.570	96.185	67.758	1.00	68.83	В
ATOM	2423	CE1	PHE	В	187	56.209	95.229	69.786	1.00	68.83	В
ATOM	2424	CE2	PHE	В	187	54.347	94.914	68.289	1.00	68.83	В
MOTA	2425	CZ	PHE	В	187	55.167	94.436	69.304	1.00	68.83	В
ATOM	2426	C	PHE	В	187	57.099	99,770	66.054	1.00	64.76	В
MOTA	2427	0	PHE	В	187	57.579	100.797	66.542	1.00	64.76	В
MOTA	2428	N	LEU	В	188	56.542	99.718	64.850	1.00	62.18	В
ATOM ATOM	2429 2430	CA CB	LEU LEU	В	188	56.456	100.875	63.981	1.00	62.18	В
ATOM	2431	CG	LEU	В	188	57.089	100.555	62.625	1.00	63.11	В
ATOM	2432	CD1	LEU	В	188	56.835 57.450	101.541	61.488	1.00	63.11	В
ATOM	2433	CD2	LEU	B B	188 188	57.459 57.406	102.884	61.823	1.00	63.11	В
ATOM	2434	C	LEU	В	188	55.009	100.977 101.291	60.197 63.776	1.00	63.11	В
ATOM	2435	ŏ	LEU	В	188	54.206	101.291	63.217	1.00 1.00	62.18	В
ATOM	2436	N	PRO	В	189	54.651	100.546	64.245	1.00	62.18 54.68	В
ATOM	2437	CD	PRO	В	189	55.379	103.405	65.135	1.00	54.08	B B
				_		30.310	100,700	55.100	1.00	91.12	U

ATOM	2438	CA	PRO	В	189	53.267	102.913	64.053	1.00	54.68	В
ATOM	2439	CB	PRO	В	189	53.173	104.176	64.901	1.00	51.12	В
ATOM	2440		PRO	В	189	54.262	103.981	65.949	1.00	51.12	В
ATOM	2441	С	PRO	В	189	53,106	103.206	62.567	1.00	54.68	В
ATOM	2442	0	PRO	В	189	53.826	104.040	62.018	1.00	54.68	В
MOTA	2443	N	ARG	В	190	52.185	102.509	61.915	1.00	58.99	В
ATOM	2444	CA	ARG	В	190	51.957	102.712	60.491	1.00	58.99	В
ATOM	2445	CB	ARG	В	190	51.990	101.370	59.746	1.00	52.79	В
ATOM	2446	CG	ARG	В	190	53.355	100,690	59.722	1.00	52.79	В
ATOM	2447	CD	ARG	В	190	53.365	99.514	58.742	1.00	52.79	В
ATOM	2448	NE	ARG	В	190	52.927	99.934	57.414	1.00	52.79	В
ATOM	2449	CZ	ARG	В	190	51.954	99.342	56.729	1.00	52.79	В
ATOM	2450	NH1	ARG	В	190	51.319	98.296	57.241	1.00	52.79	В
ATOM	2451	NH2	ARG	В	190	51.596	99.813	55.542	1.00	52.79	В
ATOM	2452	C	ARG	В	190	50.619	103.401	60.257	1.00	58.99	В
MOTA	2453	0	ARG	В	190	49.707	103.300	61.068	1.00	58.99	В
ATOM	2454	N	PRO	В	191	50.489	104.116	59.135	1.00	67.02	В
ATOM	2455	CD	PRO	В	191	51.515	104.360	58.108	1.00	45.04	В
ATOM	2456	CA	PRO	В	191	49.255	104.821	58.801	1.00	67.02	В
ATOM	2457	CB	PRO	В	191	49.708	105.784	57.714	1.00	45.04	В
ATOM ATOM	2458 2459	CG	PRO	В	191	50.708	104.985	56.991	1.00	45.04	В
ATOM	2460	C	PRO PRO	B B	191 191	48.174	103.869	58.311	1.00	67.02	В
ATOM	2461	N	VAL	В	192	48.447 46.942	102.719	57.972	1.00	67.02	В
ATOM	2462	CA	VAL	В	192	45.843	104.351 103.528	58.274 57.814	1.00 1.00	60.09 60.09	В
ATOM	2463	CB	VAL	В	192	44.784	103,326	57.614 58.912	1.00	63.89	B B
ATOM	2464	CG1	VAL	В	192	43.629	103.555	58.390	1.00	63.89	В
ATOM	2465	CG2	VAL	В	192	45.402	102.525	60.113	1.00	63.89	В
ATOM	2466	C	VAL	В	192	45.201	104.159	56.589	1.00	60.09	В
ATOM	2467	ŏ	VAL	В	192	44.847	105.342	56.590	1.00	60.09	В
ATOM	2468	Ň	ASP	B	193	45.077	103.362	55.534	1.00	60.03	В
ATOM	2469	CA	ASP	В	193	44.471	103.813	54.292	1.00	60.03	В
ATOM	2470	СВ	ASP	В	193	44.914	102.907	53.142	1.00	83.98	В
ATOM	2471	CG	ASP	В	193	44.253	103.259	51.824	1.00	83.98	В
ATOM	2472	OD1	ASP	В	193	44.487	102.523	50.847	1.00	83.98	В
ATOM	2473	OD2	ASP	В	193	43.506	104.260	51.756	1.00	83.98	В
ATOM	2474	С	ASP	В	193	42.965	103.724	54.478	1.00	60.03	В
ATOM	2475	Ò	ASP	В	193	42.434	102.656	54.774	1.00	60.03	В
ATOM	2476	N	PRO	В	194	42.254	104.849	54.313	1.00	84.27	В
ATOM	2477	CD	PRO	В	194	42.729	106.179	53.889	1.00	72.99	В
ATOM	2478	CA	PRO	В	194	40.797	104.832	54.479	1.00	84.27	В
ATOM	2479	СВ	PRO	В	194	40.409	106.293	54.244	1.00	72.99	В
ATOM	2480	CG	PRO	В	194	41.484	106.785	53.295	1.00	72.99	В
ATOM	2481	C	PRO	В	194	40.095	103.867	53.518	1.00	84.27	В
ATOM	2482	0	PRO	В	194	39.174	103.147	53.908	1.00	84.27	В
MOTA	2483	N	ASP	В	195	40.546	103.853	52.267	1.00	83.93	В
MOTA	2484 2485	CA	ASP	В	195	39.971	102.992	51.237	1.00	83.93	В
ATOM ATOM	2486	CB CG	ASP ASP	B B	195 195	40.694 40.795	103.207	49.907	1.00	100.00	В
ATOM	2487	OD1	ASP	B	195	39.737	104.668 105.313	49.526 49.358	1.00	100.00	В
ATOM	2488	OD1	ASP	В	195	41.935	105.313	49.395	1.00 1.00	100.00 100.00	В
ATOM	2489	C	ASP	В	195	40.062	103.103	51.605	1.00	83.93	В
ATOM	2490	ŏ	ASP	В	195	39.159	100.736	51.305	1.00	83.93	B B
ATOM	2491	Ň	LYS	В	196	41.160	101.128	52.248	1.00	73.50	В
ATOM	2492	CA	LYS	В	196	41.361	99.740	52.633	1.00	73.50	В
ATOM	2493	CB	LYS	B	196	42.852	99.465	52.826	1.00	99.37	В
ATOM	2494	CG	LYS	В	196	43.630	99.418	51.525	1.00	99.37	В

ATOM	2495	CD	LYS	В	196	45.082	99.037	51.760	1.00	99.37	В
<b>MOTA</b>	2496	CE	LYS	В.		45.789	98.742	50.446	1.00	99.37	B
ATOM	2497	NZ	LYS	В	196	45.161	97.591	49,733	1.00	99.37	В
ATOM	2498	С	LYS	В	196	40.585	99.311	53,873	1.00	73.50	В
ATOM	2499	0	LYS	В	196	40.554	98.129	54.211	1.00	73.50	В
ATOM	2500	N	VAL	В	197	39.954	100.269	54.547	1.00	99.89	В
ATOM	2501	CA	VAL	В	197	39.169	99.972	55.743	1.00	99.89	В
ATOM	2502	CB	VAL	В	197	39.764	100.667	56.988	1.00	99.57	В
ATOM	2503	CG1	VAL	В	197	41.059	99.978	57.403	1.00	99.57	В
ATOM	2504	CG2	VAL	В	197	40.025	102.136	56.687	1.00	99.57	В
ATOM	2505	С	VAL	В	197	37.718	100.415	55.553	1.00	99.89	В
ATOM	2506	0	VAL	В	197	37.332	101.516	55.943	1.00	99.89	В
ATOM	2507	N	PRO	В	198	36.893	99.549	54.950	1.00	82.81	В
ATOM	2508	CD	PRO	В	198	37.264	98.203	54.477	1.00	78.19	В
ATOM	2509	CA	PRO	В	198	35.477	99.821	54.687	1.00	82.81	В
ATOM	2510	CB	PRO	В	198	35.045	98.609	53.862	1.00	78.19	В
MOTA MOTA	2511	CG	PRO	В	198	35.927	97.518	54.383	1.00	78.19	В
ATOM	2512 2513	CO	PRO	В	198	34.602	100.035	55.925	1.00	82.81	В
ATOM	2513		PRO	В	198	33.521	100.616	55.832	1.00	82.81	В
ATOM	2514	N CA	GLU GLU	В	199	35.065	99.570	57.079	1.00	99.54	В
ATOM	2516	CB	GLU	В	199	34.305	99.731	58.317	1.00	99.54	В
ATOM	2517	CG	GLU	B B	199	34.568	98.545	59.245	1.00	100.00	В
ATOM	2518	CD	GLU	8	199 199 .	34.128 32.638	97.214	58.665	1.00	100.00	В
ATOM	2519	OE1	GLU	В	199		97.177	58.378	1.00	100.00	В
ATOM	2520	OE2	GLU	В	199	31.846 32.261	97.254 97.077	59.344	1.00	100.00	В
ATOM	2521	C	GLU	В	199	34.704	101.030	57.189 59.008	1.00 1.00	100.00	В
ATOM	2522	ŏ	GLU	В	199	35.006	101.030	60.205	1.00	99.54 99.54	В
ATOM	2523	Ň	LEU	В	200	34.689	101.040	58.247	1.00	78.12	В
ATOM	2524	CA	LEU	В	200	35.084	103.418	58.768	1.00	78.12 78.12	B B
ATOM	2525	СВ	LEU	В	200	36.532	103.716	58.340	1.00	69.43	В
ATOM	2526	CG	LEU	В	200	37.188	105.059	58.688	1.00	69.43	В
ATOM	2527	CD1	LEU	В	200	38.649	104.833	59.068	1.00	69.43	В
ATOM	2528	CD2	LEU	В	200	37.066	106.014	57.509	1.00	69.43	В
ATOM	2529	С	LEU	В	200	34.156	104.529	58,303	1.00	78.12	В
MOTA	2530	0	LEU	В	200	34.094	105.590	58.921	1.00	78.12	B
MOTA	2531	N	TYR	В	201	33,437	104.292	57.211	1.00	90.96	В
ATOM	2532	CA	TYR	В	201	32.522	105.302	56.696	1.00	90.96	В
ATOM	2533	CB	TYR	В	201	32.059	104.934	55.279	1.00	88.44	В
ATOM	2534	CG	TYR	В	201	31.016	103.834	55.196	1.00	88.44	В
ATOM	2535	CD1	TYR	В	201	29.654	104.123	55.318	1.00	88.44	В
ATOM	2536	CE1	TYR	В	201	28.687	103.116	55.225	1.00	88.44	В
ATOM	2537	CD2	TYR	В	201	31.388	102.507	54.983	1.00	88.44	В
MOTA	2538	CE2	TYR	В	201	30.432	101.491	54.889	1.00	88.44	В
ATOM ATOM	2539	CZ	TYR	В	201	29.085	101.800	55.009	1.00	88.44	В
	2540 2541	OH	TYR	В	201	28.141	100.796	54.906	1.00	88.44	В
ATOM ATOM		C	TYR	В	201	31.339	105.398	57.651	1.00	90.96	В
ATOM	2542 2543	0	TYR	В	201	30.586	106.370	57.633	1.00	90.96	В
ATOM	2544	N CA	LYS LYS	В	202	31.197	104.378	58.494	1.00	87.19	В
ATOM	2545	CB	LYS	B B	202 202	30.124 30.031	104.322	59.479	1.00	87.19	В
ATOM	2546	CG	LYS		202		102.915	60.069	1.00	99.99	В
ATOM	2547	CD	LYS	B B	202	29.805 29.721	101.827	59.033 50.670	1.00	99.99	В
ATOM	2548	CE	LYS	В	202	29.721	100.452 99.363	59.679 58.640	1.00	99.99	В
ATOM	2549	NZ	LYS	В	202	30.612	99.303	56.640 57.647	1.00 1.00	99.99	В
ATOM	2550	C	LYS	В	202	30.398	105.329	60.591	1.00	99.99 87.19	В
ATOM	2551	ŏ	LYS	В	202	29.474	105.329	61.220	1.00	87.19 87.19	B B
		-		_				01.220	1.00	01.13	D

ATOM	2552	N	ASP	В	203	31.677	105.600	60.827	1.00	98.64	В
ATOM	2553	CA	ASP	В	203	32.076	106.548	61.856	1.00	98.64	В
ATOM	2554	СВ	ASP	В	203	33.397	106.111	62.494	1.00	91.68	В
ATOM	2555	CG	ASP								
			_	В	203	33.460	104.613	62.739	1.00	91.68	В
ATOM	2556	OD1	ASP	В	203	32.495	104.055	63.302	1.00	91.68	В
ATOM	2557	OD2	ASP	В	203	34.480	103.992	62.371	1.00	91.68	В
ATOM	2558	С	ASP	В	203	32.243	107.921	61.222	1.00	98.64	В
ATOM	2559	0	ASP	В	203	32.531	108.899	61.911	1.00	98.64	В
ATOM	2560	N	ILE	В	204	32.054	107.986	59.906	1.00	81.26	В
ATOM	2561	CA	ILE	В	204	32.197	109.237	59.163	1.00	81.26	В
ATOM	2562	СВ	ILE	B	204	33.100	109.058	57.923	1.00	98.99	
ATOM	2563	CG2	ILE	В	204						В
ATOM		CG1				33.205	110.373	57.167	1.00	98.99	В
	2564		ILE	В	204	34.481	108.543	58.337	1.00	98.99	В
MOTA	2565	CD1	ILE	В	204	35.263	109.491	59.213	1.00	98.99	В
ATOM	2566	С	ILE	В	204	30.859	109.769	58.665	1.00	81.26	В
ATOM	2567	0	ILE	В	204	30.500	110.918	58.915	1.00	81.26	В
MOTA	2568	N	LEU	В	205	30.133	108.924	57.944	1.00	91.26	В
ATOM	2569	CA	LEU	В	205	28.840	109.294	57.382	1.00	91.26	В
ATOM	2570	СВ	LEU	В	205	28.570	108.461	56.129	1.00	88.77	В
ATOM	2571	ĊĞ	LEU	В	205	29.624	108.529	55.025			
ATOM	2572	CD1	LEU	В	205				1.00	88.77	В
ATOM						29.351	107.437	54.000	1.00	88.77	В
	2573	CD2	LEU	В	205	29.608	109.909	54.383	1.00	88.77	В
ATOM	2574	C	LEU	В	205	27.698	109.096	58.372	1.00	91.26	В
ATOM	2575	0	LEU	В	205	27.686	108.133	59.140	1.00	91.26	В
ATOM	2576	N	SER	В	206	26.736	110.011	58.352	1.00	82.87	В
ATOM	2577	CA	SER	В	206	25.596	109.894	59.245	1.00	82.87	В
ATOM	2578	CB	SER	В	206	24.750	111.167	59.209	1.00	68.58	В
ATOM	2579	OG	SER	В	206	24.209	111.391	57.923	1.00	68.58	В
ATOM	2580	C	SER	B	206	24.786	108.702	58.761	1.00		
ATOM	2581	ŏ	SER	В	206					82.87	В
ATOM	2582	Ň	GLN	В		24.778	108.396	57.570	1.00	82.87	В
ATOM	2583				207	24.115	108.020	59.679	1.00	90.75	В
		CA	GLN	В	207	23.322	106.854	59.317	1.00	90.75	В
ATOM	2584	CB	GLN	В	207	22.894	106.115	60.587	1.00	100.00	В
ATOM	2585	CG	GLN	В	207	22.140	104.821	60.349	1.00	100.00	В
ATOM	2586	CD	GLN	В	207	21.829	104.082	61.638	1.00	100.00	В
ATOM	2587	OE1	GLN	В	207	21.131	103.066	61.632	1.00	100.00	В
ATOM	2588	NE2	GLN	В	207	22.351	104.587	62.753	1.00	100.00	В
ATOM	2589	С	GLN	В	207	22.097	107.246	58.488	1.00	90.75	В
ATOM	2590	0	GLN	В	207	21.749	108.450	58.459	1.00	90.75	В
ATOM	2591	OXT	GLN	В	207	21.497	106.338	57.875	1.00	99.88	
ATOM	2592	СВ	THR	č	52	32.968					В
ATOM	2593	OG1	THR	č			119.253	55.113	1.00	100.00	C
					52	33.012	118.160	56.042	1.00	100.00	C
ATOM	2594	CG2	THR	. C	52	33.207	120.570	55.857	1.00	100.00	С
ATOM	2595	C	THR	Ç	52	31.499	118.066	53.456	1.00	99.97	С
ATOM	2596	0	THR	С	52	30.536	117.298	53.510	1.00	99.97	С
ATOM	2597	N	THR	С	52	30.479	119.295	55.385	1.00	99.97	С
ATOM	2598	CA	THR	С	52	31.594	119.273	54.396	1.00	99.97	С
ATOM	2599	N	ASP	С	53	32.506	117.909	52.598	1.00	100.00	Č
ATOM	2600	CA	ASP	С	53	32,553	116.813	51.630	1.00	100.00	Č
ATOM	2601	CB	ASP	C	53	33.302	117.272	50.376	1.00	100.00	č
ATOM	2602	CG	ASP	č	53	33.064	116.366	49.186			
ATOM	2603	OD1	ASP	č					1.00	100.00	C
ATOM					53 53	33.748	116.557	48.156	1.00	100.00	C
	2604	OD2	ASP	C	53	32.190	115.473	49.275	1.00	100.00	С
ATOM	2605	C	ASP	C	53	33.239	115.573	52.214	1.00	100.00	С
MOTA	2606	0	ASP	C	53	33.900	115.651	53.253	1.00	100.00	С
ATOM	2607	N	LEU	С	54	33.083	114.433	51.543	1.00	94.05	С
ATOM	2608	CA	LEU	С	54	33.689	113.183	52.004	1.00	94.05	С

WO 02/24722 PCT/IL01/00871

ATOM ATOM ATOM ATOM ATOM ATOM ATOM ATOM	2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2629 2620 2621 2622 2623 2624 2625 2626 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656	CBGCCCCONABGOTON	LILLILLA A A A A A A A H H H H H H H H L L L L		544 544 555 555 555 556 666 666 666 666	32,818 33,439 33,779 32,479 35,087 35,258 36,551 36,431 35,196 35,714 38,706 36,965 37,714 36,745 37,360 38,651 36,604 37,402 38,649 38,370 39,580 37,551 38,017 36,823 37,174 37,923 38,986 39,135 37,715 37,331 37,964 37,508 41,058 42,060 41,102 42,370 43,141 44,309 42,466 43,039 41,957 40,558 41,058 41,058 41,058 42,060 41,102 42,370 43,141 44,309 42,466 43,039 41,957 40,558 41,559 40,550	111.987 110.619 110.524 109.516 112.980 112.497 113.335 113.209 113.662 113.888 114.108 115.194 116.159 117.220 118.182 118.529 119.480 119.710 119.480 115.420 115.502 114.684 113.378 112.729 113.723 112.267 112.814 113.378 112.729 113.723 112.67 113.886 113.890 114.681 115.960 117.220 114.684 113.941 113.878 113.941 113.878 113.941 113.878 113.878 113.878 113.878 113.878 113.878 113.880 114.435 115.096 115.296 115.296 116.428 117.025	51.617 51.915 53.393 51.511 51.435 52.125 50.166 49.510 48.056 47.296 46.916 50.281 50.392 50.816 51.611 52.154 53.349 53.124 53.349 54.713 54.674 55.442 56.779 57.660 57.462 53.514 55.452 53.514 55.452 53.514 55.452 55.115 53.223 51.619 51.806 50.781 51.806 50.781 50.146 50.781 50.788 50.781 50.146 50.781 50.146 50.781 50.146 50.781 50.788 50.781 50.788 50.781 50.788	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	97.96 97.96 97.96 97.96 97.96 94.05 94.05 94.05 89.17 89.17 75.92 100.00	000000000000000000000000000000000000000
ATOM ATOM ATOM	2656 2657 2658	CB CG2 CG1	ILE ILE ILE	CCC	60 60 60	41.997 42.558 41.579	115.096 115.296 116.428	56.310 57.706 55.689	1.00 1.00 1.00	56.02 56.02 56.02 57.00 57.00 59.72 59.72 56.09	CCC
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### WO 02/24722

ATOM	2666	CD1	LEU	С	61	39.705	108,981	56.667	1.00	56.09	С
ATOM	2667	CD2	LEU	Č	61	41.057	110.229	58.328	1.00	56.09	č
ATOM	2668	С	LEU	С	61	44.381	110.170	55.404	1.00	59.72	C
MOTA	2669	0	LEU	С	61	45.073	109.259	55.864	1.00	59.72	С
ATOM	2670	N	ARG	С	62	44.620	110.730	54.220	1.00	57.36	С
ATOM	2671	CA	ARG	С	62	45.740	110.302	53.384	1.00	57.36	С
ATOM	2672	CB	ARG	С	62	45.376	110.386	51.897	1.00	67.53	С
ATOM	2673	CG	ARG	С	62	44.179	109.547	51.501	1.00	67.53	С
MOTA	2674	CD	ARG	С	62	44.415	108.825	50.196	1.00	67.53	С
ATOM	2675	NE	ARG	С	62	43.243	108.058	49.779	1.00	67.53	С
ATOM	2676	CZ	ARG	С	62	42.127	108.597	49.291	1.00	67.53	С
ATOM	2677	NH1	ARG	С	62	42.023	109.914	49.154	1.00	67.53	С
MOTA	2678	NH2	ARG	С	62	41.116	107.818	48.934	1.00	67.53	С
ATOM	2679	С	ARG	С	62	46.992	111.137	53.645	1.00	57.36	С
ATOM	2680	0	ARG	C	62	47.933	111.119	52.853	1.00	57.36	С
ATOM	2681	N	ARG	C	63	46.996	111.867	54.757	1.00	47.93	С
ATOM	2682	CA	ARG	C	63	48.142	112.687	55.123	1.00	47.93	С
ATOM	2683	CB	ARG	C	63	47.704	113.846	56.013	1.00	49.06	С
ATOM	2684	CG	ARG	С	63	46.906	114.867	55.234	1.00	49.06	С
ATOM	2685	CD	ARG	C	63	46.564	116.077	56.056	1.00	49.06	С
ATOM	2686	NE	ARG	C	63	45.807	117.037	55.265	1.00	49.06	С
ATOM	2687	CZ	ARG	C	63	45.412	118.224	55.711	1.00	49.06	С
ATOM	2688	NH1	ARG	C	63	45.700	118.606	56.950	1.00	49.06	С
ATOM ATOM	2689	NH2	ARG	C	63	44.741	119.037	54.912	1.00	49.06	С
ATOM	2690 2691	CO	ARG	C	63	49.225	111.855	55.805	1.00	47.93	C
ATOM	2692	N	ARG	C	63	48.957	111.060	56.719	1.00	47.93	C
ATOM	2693	CA	ARG	C	64	50.459	112.044	55.346	1.00	50.16	C
ATOM	2694	CB	ARG ARG	C	64	51.576	111.286	55.873	1.00	50.16	C
ATOM	2695	CG	ARG	Č	64 64	51.810	110.042	55.007	1.00	47.99	C
ATOM	2696	CD	ARG	Č	64	50.556 50.425	109.303	54.600 55.247	1.00	47.99	C
ATOM	2697	NE	ARG	č	64	49.260	107.994 107.231	55.347	1.00	47.99	C
ATOM	2698	CZ	ARG	č	64	47.998	107.251	54.901 55.171	1.00 1.00	47.99	C
ATOM	2699	NH1	ARG	č	64	47.716	108.628	55.901	1.00	47.99 47.99	C
ATOM	2700	NH2	ARG	č	64	47.014	106.799	54.695	1.00	47.99 47.99	C
ATOM	2701	C	ARG	č	64	52.851	112.100	55.867	1.00	50.16	Č
ATOM	2702	Ö	ARG	č	64	52.871	113.251	55.446	1.00	50.16	Č
ATOM	2703	Ň	GLN	Č	65	53.909	111.465	56.360	1.00	41.79	č
ATOM	2704	CA	GLN	C	65	55.249	112.025	56.374	1.00	41.79	č
ATOM	2705	CB	GLN	C	65	55.822	112.089	57.792	1.00	50.64	č
ATOM	2706	CG	GLN	С	65	55.070	112.988	58.751	1.00	50.64	č
MOTA	2707	CD	GLN	С	. 65	55.856	113.264	60.030	1.00	50.64	č
ATOM	2708	OE1	GLN	С	65	56.883	113.951	60.007	1.00	50.64	Č
ATOM	2709	NE2	GLN	С	65	55.378	112.723	61.151	1.00	50.64	Č
ATOM	2710	С	GLN	С	65	56.017	110.979	55.566	1.00	41.79	C
ATOM	2711	0	GLN	С	65	55.709	109.788	55.638	1.00	41.79	C
ATOM	2712	N	LEU	С	66	56.987	111.410	54,773	1.00	42.83	С
ATOM	2713	CA	LEU	С	66	57.758	110.451	54.001	1.00	42.83	С
ATOM	2714	CB	LEU	С	66	57.852	110.855	52.531	1.00	44.65	С
ATOM	2715	CG	LEU	С	66	56.892	110.109	51.610	1.00	44.65	С
ATOM	2716	CD1	LEU	С	66	57.176	110.499	50.169	1.00	44.65	С
ATOM	2717	CD2	LEU	C	66	57.059	108.611	51.791	1.00	44.65	С
ATOM	2718	C	LEU	С	66	59.136	110.351	54.593	1.00	42.83	С
ATOM	2719	0	LEU	C	66	59.952	111.262	54.453	1.00	42.83	С
MOTA	2720	N	TYR	C	67	59.387	109.232	55.261	1.00	48.46	С
MOTA	2721	CA	TYR	C	67 67	60.671	109.007	55.896	1.00	48.46	С
ATOM	2722	СВ	TYR	С	67	60.480	108.303	57.236	1.00	54.10	С

WO 02/24722 PCT/IL01/00871

ATOM	2/23	CG	IYK	Ü	67	61.//4	108,057	57.971	1.00	54.10	C
ATOM	2724	CD1	TYR	C	67	62.508	109.115	58.507	1.00	54.10	С
ATOM	2725	CE1	TYR	С	67	63.705	108.886	59.184	1.00	54.10	С
ATOM	2726	CD2	TYR	С	67	62,272	106.762	58.128	1.00	54.10	С
ATOM	2727	CE2	TYR	С	` 67	63.461	106.524	58.799	1.00	54.10	С
ATOM	2728	CZ	TYR	С	67	64.172	107.586	59.325	1.00	54.10	С
MOTA	2729	ОН	TYR	C	67	65.348	107.345	59.993	1.00	54.10	С
MOTA	2730	С	TYR	С	67	61.601	108.185	55.017	1.00	48.46	C
ATOM	2731	0	TYR	С	67	61.342	107.012	54,737	1.00	48,46	C
ATOM	2732	N	CYS	С	68	62.682	108.820	54.581	1.00	46.82	C
ATOM	2733	CA	CYS	С	68	63.669	108.164	53,748	1.00	46.82	С
ATOM	2734	CB	CYS	С	68	64.490	109.212	53.000	1.00	54.28	С
ATOM	2735	SG	CYS	С	68	65.590	108.523	51.757	1.00	54.28	С
ATOM	2736	С	CYS	C	68	64.567	107.343	54.673	1.00	46.82	С
ATOM	2737	0	CYS	С	68	64.946	107.817	55.751	1.00	46.82	C
ATOM	2738	N	ARG	С	. 69	64.898	106.120	54.259	1.00	54.93	С
ATOM	2739	CA	ARG	С	69	65.743	105.243	55.063	1.00	54.93	C
ATOM	2740	CB	ARG	С	69	66.038	103.940	54.311	1.00	96.31	С
ATOM	2741	CG	ARG	C	69	66.932	102.972	55.079	1.00	96.31	C
ATOM	2742	ÇD	ARG	С	69	66.313	102.550	56.409	1.00	96.31	C

ATOM	2743	NE	ARG	С	69	67,327	102.373	57.450	1.00	96.31	С
ATOM	2744	CZ	ARG	Č	69	68.270	101.435	57,440	1.00	96.31	Č
ATOM	2745	NH1	ARG	č	69	68.340	100.564	56.439	1.00	96.31	Č
ATOM	2746										Š
		NH2	ARG	C	69	69.157	101.377	58.426	1.00	96.31	C
ATOM	2747	C	ARG	C	69	67.049	105.947	55.437	1.00	54.93	С
ATOM	2748	0	ARG	С	69	67.742	105.559	56.381	1.00	54.93	С
ATOM	2749	N	THR	С	70	67.363	106.998	54.694	1.00	49.77	С
ATOM	2750	CA	THR	С	70	68.564	107.784	54.926	1.00	49.77	С
ATOM	2751	СВ	THR	Č	70	68.787	108.765	53.752	1.00	63.59	Č
ATOM	2752	OG1	THR	Č	70	70.135	109.239		1.00		
ATOM	2753	CG2						53.769		63.59	C
			THR	C	70	67.840	109.950	53.859	1.00	63.59	C
ATOM	2754	C	THR	C	70	68.442	108.561	56.246	1.00	49.77	С
MOTA	2755	0	THR	С	70	69.415	109.139	56.728	1.00	49.77	С
ATOM	2756	N	GLY	С	71	67.239	108.576	56.821	1.00	51.51	C
ATOM	2757	CA	GLY	С	71	67.014	109.270	58.078	1.00	51.51	С
ATOM	2758	С	GLY	С	71	66.345	110.633	57.986	1.00	51.51	С
ATOM	2759	0	GLY	Ċ	71	66.274	111.357	58.981	1.00	51.51	Č
ATOM	2760	Ň	PHE	Č	72	65.846	110.994	56.807	1.00	48.91	č
ATOM	2761	CA	PHE	č	72	65.201	112,295		1.00	48.91	
ATOM	2762	CB						56.642			C
			PHE	C	72	66.019	113.194	55.719	1.00	54.63	C
ATOM	2763	CG	PHE	С	72	67.404	113.459	56.198	1.00	54.63	С
ATOM	2764	CD1	PHE	С	72	68.395	112.496	56.066	1.00	54.63	С
ATOM	2765	CD2	PHE	С	72	67.722	114.679	56.782	1.00	54.63	С
ATOM	2766	CE1	PHE	С	72	69.688	112.748	56.508	1.00	54.63	C
ATOM	2767	CE2	PHE	С	72	69.007	114.940	57.226	1.00	54.63	C
ATOM	2768	CZ	PHE	С	72	69.993	113.975	57.090	1.00	54.63	Č
ATOM	2769	С	PHE	Č	72	63.793	112.245	56.083	1.00	48.91	č
ATOM	2770	Ŏ	PHE	č	72	63.442	111.351	55.314	1.00	48.91	Č
ATOM	2771	N	HIS	Č	73	62.991	113.229				
ATOM	2772	CA						56.469	1.00	42.55	C
ATOM			HIS	C	73	61.629	113.344	55.970	1.00	42.55	C
	2773	CB	HIS	C	73	60.682	113.880	57.045	1.00	45.15	С
ATOM	2774	CG	HIS	C	73	60.388	112.905	58.138	1.00	45.15	С
ATOM	2775	CD2	HIS	С	73	59.430	111.953	58.248	1.00	45.15	С
ATOM	2776	ND1	HIS	С	73	61.127	112.843	59.299	1.00	45.15	С
ATOM	2777	CE1	HIS	С	73	60.634	111.896	60.080	1.00	45.15	С
ATOM	2778	NE2	HIS	С	73	59.604	111.341	59.465	1.00	45.15	С
ATOM	2779	С	HIS	С	73	61.627	114.309	54.792	1.00	42.55	Č
ATOM	2780	0	HIS	C	73	62.266	115.363	54.828	1.00	42.55	č
ATOM	2781	N	LEU	Č	74	60.905	113.941	53.745	1.00	42.14	Č
ATOM	2782	CA	LEU	č	74	60.812	114.783	52.569	1.00	42.14	č
ATOM	2783	CB	LEU	Č	74						
ATOM	2784	CG	LEU	Č		60.150	114.005	51.433	1.00	50.46	C
ATOM					74	60.181	114.628	50.038	1.00	50.46	С
	2785	CD1	LEU	C	74	61.586	114.549	49.482	1.00	50.46	С
ATOM	2786	CD2	LEU	С	74	59.231	113.876	49.128	1.00	50.46	С
ATOM	2787	С	LEU	C	74	59.986	116.028	52.897	1.00	42.14	С
ATOM	2788	0	LEU	С	74	58.870	115.928	53.415	1.00	42.14	С
ATOM	2789	N	GLU	С	75	60.546	117.199	52.606	1.00	42.02	С
ATOM	2790	CA	GLU	С	75	59.858	118.469	52.833	1.00	42.02	Č
ATOM	2791	СВ	GLU	C	75	60.686	119.388	53.728	1.00	61.65	Č
ATOM	2792	CG	GLU	Č	75	60.942	118.890	55.124	1.00	61.65	Č
ATOM	2793	CD	GLU	č	75	61.856	119.824	55.884	1.00	61.65	
ATOM .	2794	OE1	GLU	Č							C
				Č	75 75	63.080	119.799	55.629	1.00	61.65	C
ATOM	2795	OE2	GLU	C	75 75	61.346	120.597	56.724	1.00	61.65	C
ATOM	2796	C	GLU	C	75	59.639	119.188	51.505	1.00	42.02	C
ATOM	2797	0	GLU	C	75	60.546	119.260	50.680	1.00	42.02	С
ATOM	2798	N	ILE	C	76	58.440	119.714	51.295	1.00	41.08	С
ATOM	2799	CA	ILE	С	76	58.156	120.463	50.075	1.00	41.08	С

### WO 02/24722

FIGURE 2 Continued

### PCT/IL01/00871

ATOM	2800	СВ	ILE	С	76	56.900	119.918	49.358	1.00	31.52 C
ATOM	2801	CG2	ILE	č	76	56.571	120.796	48.150	1.00	31.52 C
ATOM	2802	CG1	ILE	Č	76	57.136	118.454	48.954	1.00	31.52 C
MOTA	2803	CD1	ILE	С	76	55.946	117.758	48.325	1.00	31.52 C
ATOM	2804	С	ILE	С	76	57.951	121.927	50.490	1.00	41.08 C
MOTA	2805	0	ILE	С	76	56,954	122.282	51.122	1.00	41.08 C
ATOM	2806	N	PHE	С	77	58.918	122.769	50.149	1.00	46.90 C
ATOM	2807	CA	PHE	С	77	58.870	124.174	50.519	1.00	46.90 C
ATOM	2808	CB	PHE	С	77	60.296	124.712	50.660	1.00	43.12 C
ATOM	2809	CG	PHE	C	77	60.961	124.302	51.941	1.00	43.12 C
ATOM	2810	CD1	PHE	C	77	60.692	124.981	53.127	1.00	43.12 C
ATOM	2811	CD2	PHE	C	77	61.797	123.199	51.985	1.00	43.12 C
MOTA	2812	CE1	PHE	C	77 77	61.248	124.559	54.341	1.00	43.12 C
ATOM ATOM	2813 2814	CE2 CZ	PHE	C	77 77	62.354	122.773	53.193	1.00	43.12 C
ATOM	2815	C	PHE PHE	C	77 77	62.076	123.454	54.371	1.00	43.12 C
ATOM	2816	ŏ	PHE	Č	77 77	58.053 57.856	125.066 124.763	49.602 48.423	1.00 1.00	46.90 C 46.90 C
ATOM	2817	N	PRO	Č	78	57.551	126.184	50.150	1.00	46.05 C
ATOM	2818	CD	PRO	Č	78	57.618	126.564	51.574	1.00	34.87 C
ATOM	2819	CA	PRO	č	<b>78</b> .	56.742	127.144	49.397	1.00	46.05 C
ATOM	2820	СВ	PRO	Č	78	56.491	128.251	50.415	1.00	34.87 C
ATOM	2821	CG	PRO	Č	78	56.432	127.497	51.704	1.00	34.87 C
ATOM	2822	С	PRO	С	78	57.433	127.645	48.135	1.00	46.05 C
ATOM	2823	0	PRO	С	78	56.777		47.118	1.00	46.05 C
ATOM	2824	N	ASN	С	79	58.749	127.845	48.182	1.00	45.01 C
ATOM	2825	CA	ASN	С	79	59.449	128.313	46.991	1.00	45.01 C
ATOM	2826	CB	ASN	С	79	60.763	129.015	47.340	1.00	49.74 C
ATOM	2827	CG	ASN	C	79	61.668	128.189	48.225	1.00	49.74 C
ATOM	2828	OD1	ASN	C	79	61.667	126.951	48.180	1.00	49.74 C
ATOM ATOM	2829	ND2	ASN	C	79	62.467	128.906	49.015	1.00	49.74 C
ATOM	2830 2831	C	ASN ASN	C	79 70	59.723	127.199	45.989	1.00	45.01 C
ATOM	2832	N	GLY	C	79 80	60.527	127.363	45.071	1.00	45.01 C
ATOM	2833	CA	GLY	Č	80	59.055 59.224	126.064 124.955	46.167 45.246	1.00	47.67 C
ATOM	2834	Č.	GLY	Č	80	60.463	124.933	45.466	1.00 1.00	47.67 C 47.67 C
ATOM	2835	ŏ	GLY	č	80	60.762	123.217	44.684	1.00	47.67 C
ATOM	2836	Ň	THR	Č	81	61.189	124.396	46.532	1.00	40.35 C
ATOM	2837	CA	THR	C	81	62.389	123.644	46.838	1.00	40.35 C
ATOM	2838	CB	THR	С	81	63.383	124.535	47.605	1.00	62.47 C
ATOM	2839	OG1	THR	С	81	64.064	125.376	46.667	1.00	62.47 C
ATOM	2840	CG2	THR	С	81	64.398	123.706	48.367	1.00	62.47 C
ATOM	2841	C	THR	C	81	62.071	122.374	47.628	1.00	40.35 C
ATOM	2842	0	THR	C	81	61.089	122.310	48.368	1.00	40.35 C
ATOM	2843	N	ILE	C	82	62.894	121.352	47.429	1.00	48.55 C
MOTA	2844	CA	ILE	C	82	62.716	120.087	48.110	1.00	48.55 C
ATOM ATOM	2845 2846	CB CG2	ILE	C	82	62.677	118.909	47.114	1.00	35.35 C
ATOM	2847	CG1	ILE	C	82 82	62.562 61.498	117.573 119.098	47.876 46.164	1.00	35.35 C
ATOM	2848	CD1	ILE	C	82 82	60.195	119.096	46.886	1.00 1.00	35.35 C 35.35 C
ATOM	2849	C	ILE	000	82	63.880	119.929	49.055	1.00	48.55 C
ATOM	2850	ŏ	ILE	č	82	65.009	120.269	48.714	1.00	48.55 C
ATOM	2851	N	GLN	Č	83	63.606	119.393	50.237	1.00	39.36 C
ATOM	2852	CA	GLN	С	83	64.637	119.251	51.250	1.00	39.36 C
ATOM	2853	CB	GLN	С	83	64.698	120.564	52.035	1.00	65.22 C
ATOM	2854	CG	GLN	С	83	65.819	120.712	53.033	1.00	65.22 C
ATOM	2855	CD	GLN	C	83	65.788	122.080	53.696	1.00	65.22 C
ATOM	2856	OE1	GLN	С	83	65.959	123.108	53.033	1.00	65.22 C

### WO 02/24722

ATOM	2857	NE2	GLN	С	83	65.552	122.099	55.007	1.00	65.22 C	•
ATOM	2858	C	GLN	Č	83	64.326	118.083	52.180	1.00	39.36 C	
ATOM	2859	ŏ	GLN	Č	83	63.247	117.505	52.122	1.00	39.36 C	
ATOM	2860	N	GLY	č	84	65.287	117.741	53.029	1.00	46.73	
ATOM	2861	CA	GLY	č	84	65.100	116.651	53.966	1.00	46.73 C	
ATOM	2862	Č,	GLY	č	84	65.369	117.127	55.378	1.00	46.73 C	
ATOM	2863	ŏ	GLY	č	84	66.242	117.127	55.602	1.00	46.73 C	
ATOM	2864	N	THR	č	85	64.615	116.603	56.335	1.00	48.67	
ATOM	2865	CA	THR	č	85	64.795	116.993	57.723	1.00	48.67 C	
ATOM	2866	СВ	THR	č	85	63.795	118.083	58.129	1.00	59.68 C	
ATOM	2867	OG1	THR	Č	85	64.077	118.506	59.467	1.00	59.68 C	
ATOM	2868	CG2	THR	č	85	62.369	117.548	58.063	1.00	59.68 C	
ATOM	2869	C	THR	č	85	64.616	115.813	58.668	1.00	48.67 C	
ATOM	2870	ŏ	THR	č	85	63.725	114.979	58.479	1.00	48.67 C	
ATOM	2871	N	ARG	Č	86	65.467	115.747	59.687	1.00	47.24 C	
ATOM	2872	CA	ARG	č	86	65.384	114.675	60.672	1.00	47.24 C	
ATOM	2873	СВ	ARG	Č	86	66.672	114.609	61.488	1.00	80.07 C	
ATOM	2874	ĊĞ	ARG	č	86	67.859	114.170	60.676	1.00	80.07 C	•
ATOM	2875	CD	ARG	Č	86	69.132	114.159	61.493	1.00	80.07 C	
ATOM	2876	NE	ARG	Č	86	70.212	113.498	60.766	1.00	80.07 C	
ATOM	2877	CZ	ARG	Č	86	70.171	112.230	60.362	1.00	80.07 C	
ATOM	2878	NH1	ARG	Č	86	69.101	111.484	60.616	1.00	80.07 C	
ATOM	2879	NH2	ARG	Č	86	71.196	111.708	59.698	1.00	80.07 C	
ATOM	2880	С	ARG	C	86	64.193	114.917	61.593	1.00	47.24 C	
ATOM	2881	0	ARG	С	86	63.651	113.980	62.178	1.00	47.24 C	
ATOM	2882	N	LYS	C	87	63.787	116.180	61.699	1.00	58.17 C	
ATOM	2883	CA	LYS	С	87	62.668	116.577	62.542	1.00	58.17 C	
ATOM	2884	CB	LYS	С	87	62.381	118.067	62.374	1.00	93.57 C	
ATOM	2885	CG	LYS	С	87	63.603	118.960	62.453	1.00	93.57 C	
ATOM	2886	CD	LYS	С	87	64.198	118.998	63.849	1.00	93.57 C	;
ATOM	2887	CE	LYS	С	87	65.421	119.911	63.891	1.00	93.57 C	
ATOM	2888	NZ	LYS	C	87	65.104	121.301	63.450	1.00	93.57 C	;
ATOM	2889	C	LYS	С	87	61.411	115.797	62.192	1.00	58.17 C	;
ATOM	2890	0	LYS	C	87	61.208	115.409	61.041	1.00	58.17 C	;
ATOM	2891	N	ASP	C	88	60.571	115.572	63.197	1.00	49.56 C	;
ATOM	2892	CA	ASP	C	88	59.313	114.858	63.020	1.00	49.56 C	;
MOTA	2893	CB	ASP	C	88	59.094	113.882	64.175	1.00	53.79 C	
ATOM .	2894	CG	ASP	C	88	57.745	113.195	64.113	1.00	53.79 C	,
ATOM	2895	OD1	ASP	C	88	57.372	112.687	63.036	1.00	53.79 C	ì
ATOM ATOM	2896 2897	OD2	ASP	C	88	57.052	113.151	65.147	1.00	53.79 C	;
ATOM	2898	C O	ASP ASP	CC	88	58.204	115.900	62.990	1.00	49.56 C	
ATOM	2899	N			88	58.297	116.927	63.657	1.00	49.56 C	
ATOM	2900	CA	HIS HIS	C	89	57.167	115.643	62.202	1.00	58.06 C	
ATOM	2901	CB	HIS	C	89	56.043 55.211	116.567	62.082	1.00	58.06 C	
ATOM	2902	CG	HIS	C	89 89	54.337	116.572 115.375	63.355	1.00	49.88 C	
ATOM	2903	CD2	HIS	C	89	53.215	115.375	63.484 62.815	1.00	49.88 C	
ATOM	2904	ND1	HIS	C	89	54.626	114.335	64.338	1.00	49.88 C	
ATOM	2905	CE1	HIS	č	89	53.718	113.387	64.187	1.00 1.00	49.88 C	
ATOM	2906	NE2	HIS	č	89	52.850	113.777	63.269	1.00	49.88 C 49.88 C	
ATOM	2907	C	HIS	č	89	56.451	117.985	61.757	1.00	58.06 C	
ATOM	2908	Ö	HIS	č	89	55.820	118.946	62.199	1.00	58.06 C	
ATOM	2909	N	SER	č	90	57.512	118.113	60.982	1.00	46.04 C	
ATOM	2910	CA	SER	č	90	57.977	119.424	60.590	1.00	46.04 C	
ATOM	2911	СВ	SER	Č	90	59.296	119.324	59.823	1.00	57.14 C	
ATOM	2912	ŌĠ	SER	Č	90	59.098	118.708	58.560	1.00	57.14 C	
ATOM	2913	С	SER	C	90	56.930	120.014	59.669	1.00	46.04 C	

ATOM	2914	0	SER	С	90	56.219	119.291	58.965	1.00	46.04	С
ATOM					91						
	2915	N	ARG	С		56.815	121.330	59.693	1.00	90.55	С
ATOM	2916	CA	ARG	С	91	55.893	121.995	58.803	1.00	90.55	С
ATOM	2917	CB	ARG	С	91	55.849	123.480	59.149	1.00	75.27	С
ATOM	2918	CG	ARG	С	91	54.928	124.318	58.306	1.00	75.27	С
ATOM	2919	CD	ARG	С	91	55.165	125.773	58.608	1.00	75.27	С
ATOM	2920	NE		č							
			ARG		91	54.482	126.638	57.658	1.00	75.27	С
ATOM	2921	CZ	ARG	С	91	54.871	127.877	57.372	1.00	75.27	С
ATOM	2922	NH1	ARG	С	91	55.942	128.391	57.967	1.00	75.27	С
ATOM	2923	NH2	ARG	С	91	54.196	128.598	56.486	1.00	75.27	С
ATOM	2924	С	ARG	С	91	56.620	121.757	57.482	1.00	90.55	С
ATOM	2925	Ō	ARG	C	91	57.855	121.804	57.444	1.00	90.55	Č
ATOM	2926	N	PHE	С	92	55.877	121.467	56.419	1.00	56 <i>.</i> 17	С
ATOM	2927	CA	PHE	С	92	56.477	121.213	55.099	1.00	56.17	C
ATOM	2928	CB	PHE	Ċ	92	57.716	122.087	54.868	1.00		Č
										56.97	
ATOM	2929	CG	PHE	С	92	57.455	123.553	55.000	1.00	56.97	С
ATOM	2930	CD1	PHE	С	92	56.395	124.149	54.323	1.00	56.97	С
ATOM	2931	CD2	PHE	C	92	58.267	124.344	55.808	1.00	56.97	Č
ATOM	2932	CE1	PHE	С	92	56.145	125.515	54.452	1.00	56.97	C
ATOM	2933	CE2	PHE	С	92	58.029	125.709	55.945	1.00	56.97	С
ATOM	2934	CZ	PHE	Č	92	56.965	126.297	55.265	1.00		č
										56.97	
ATOM	2935	С	PHE	С	92	56.854	119.745	54.893	1.00	56.17	С
ATOM	2936	0	PHE	С	92	57.224	119.335	53.794	1.00	56,17	С
ATOM	2937	N	GLY	Č	93	56.766	118.966			43.07	
								55.963	1.00		C
ATOM	2938	CA	GLY	С	93	57.063	117.551	55.888	1.00	43.07	С
ATOM	2939	С	GLY	С	93	55.739	116.812	55.967	1.00	43.07	С
ATOM	2940	Ō	GLY	C	93	55.693	115.578	55.919	1.00		Č
										43.07	
ATOM	2941	N	ILE	С	94	54.659	117.583	56.107	1.00	48.14	С
ATOM	2942	CA	ILE	С	94	53.316	117.016	56.178	1.00	48.14	С
ATOM	2943	CB	ILE	С	94	52.361	117.901	57.022	1.00	37.80	Č
ATOM	2944	CG2									
			ILE	C	94	50.990	117.247	57.123	1.00	37.80	С
ATOM	2945	CG1	ILE	С	94	52.957	118.120	58.414	1.00	37.80	С
ATOM	2946	CD1	ILE	С	94	53.383	116.831	59.125	1.00	37.80	Č
ATOM	2947	C	ILE	č							
					94	52.834	116.951	54.737	1.00	48.14	С
ATOM	2948	0	ILE	С	94	52.651	117.979	54.081	1.00	48.14	С
ATOM	2949	N	LEU	С	95	52.628	115.732	54.256	1.00	40.90	C
ATOM	2950	CA	LEU	č							
					95	52.237	115.508	52.874	1.00	40.90	С
ATOM	2951	CB	LEU	С	95	53.327	114.697	52.168	1.00	37.62	С
ATOM	2952	CG	LEU	С	95	54.780	115.076	52.494	1.00	37.62	С
ATOM	2953	CD1	LEU	Č	95	55.710	114.037				Š
								51.905	1.00	37.62	С
ATOM	2954	CD2	LEU	С	95	55.109	116.454	51.948	1.00	37.62	С
ATOM	2955	С	LEU	С	95	50.928	114.770	52.717	1.00	40.90	С
ATOM	2956	0	LEU	С	95	50.541	113.960	53.562	1.00	_	Č
										40.90	-
ATOM	2957	N	GLU	С	96	50.252	115.043	51.612	1.00	37.54	C
ATOM	2958	CA	GLU	С	96	49.004	114.364	51.319	1.00	37.54	С
ATOM	2959	CB	GLU	С	96	47.917	115.358	50.948	1.00	62.78	
											С
ATOM	2960	CG	GLU	С	96	46.558	114.725	50.819	1.00	62.78	С
ATOM	2961	CD	GLU	С	96	45.581	115.641	50.141	1.00	62.78	С
ATOM	2962	OE1	GLU	С	96	45.654	116.865	50.389	1.00	62.78	Č
ATOM	2963	OE2	GLU	č							Č
				C	96	44.738	115.141	49.366	1.00	62.78	С
ATOM	2964	С	GLU	С	96	49.235	113.423	50.143	1.00	37.54	С
ATOM	2965	0	GLU	С	96	49.601	113.859	49.048	1.00	37.54	Č
ATOM	2966	Ň	PHE	č	97						
						49.039	112.132	50.376	1.00	51.61	С
MOTA	2967	CA	PHE	С	97	49.200	111.158	49.315	1.00	51.61	С
MOTA	2968	CB	PHE	С	97	49.544	109.785	49.887	1.00	45.25	C
ATOM	2969	CG	PHE	Č	97	51.010	109.574	50.078	1.00	45.25	
											C
ATOM	2970	CD1	PHE	С	97	51.762	110.467	50.838	1.00	45.25	С

# WO 02/24722

2071	CD2	DHE	C	97	51 651	108 408	40 494	1.00	45 DE (	_
							50.393			
2975	С	PHE		97	47.921	111.086	48.512	1.00	51.61	)
2976	0	PHE	С	97	46.849	110.831	49.048			
2977	N	ILE		98	48.036					
			0							
			С		48.048		44.846	1.00	47.54	)
				99	45.978	109.208	45.493	1.00	68.65	)
2986	CA	SER	С	99	45.990	107.982	44.708	1.00		
2987	CB	SER	С	99	45.126	106.916	45.375	1.00		
2988	OG	SER		99						
			Č							
_										
							40.628		42.18	)
				100	45.513	107.451	40.263	1.00	45.89 C	)
2998	0		С	100	44.634	107.590	39.418	1.00	45.89 C	)
2999	N	ALA	C	101	45.992	106.266	40.615			
3000	CA	ALA	С	101	45.506				42 48 (	
3001	CB	ALA								
3002	С									
										;
						101.636	41.673	1.00	50.95 C	;
			С	103	50.353	101.719	41.590	1.00	50.95 C	;
	С	GLY	С	103	50.918	103.112	41.369	1.00	50.95 C	
3014	0	GLY .	С	103	52,134	103.286	41.361	1.00	50.95 C	•
3015	N	LEU								
3016										
			Č							
			Č							
			č							
			Č							
			Č							
			C							
			C						36.41 C	
					51.016	108.080	44.853	1.00	35.73 C	
	CG1	VAL		105	50.599	106.702	45.323	1.00	35.73 C	
3027	CG2	VAL	С	105	52.536	108.228	44.839	1.00		
	2977 2978 2979 2980 2981 2982 2983 2984 2985 2986 2987 2988 2999 2991 2992 2993 2994 2995 2996 2997 2998 2999 3000 3001 3002 3003 3004 3005 3006 3007 3008 3009 3010 3011 3012 3013 3014 3015 3016 3017 3018 3019 3020 3021 3022 3023 3024 3025 3026	2972 CE1 2973 CE2 2974 CZ 2975 C 2976 O 2977 N 2978 CA 2979 CB 2980 CG2 2981 CG1 2982 CD1 2983 C 2984 O 2985 N 2986 CA 2987 CB 2988 OG 2989 C 2990 O 2991 N 2992 CA 2993 CB 2994 CG2 2995 CG1 2997 C 2998 O 2991 N 3000 CA 3001 CB 3002 C 3003 O 3004 N 3005 CA 3001 CB 3002 C 3003 O 3004 N 3005 CA 3001 CB 3002 C 3003 O 3004 N 3005 CA 3001 CB 3002 C 3003 O 3004 N 3005 CA 3006 CB 3007 CG1 3008 CG2 3009 C 3010 O 3011 N 3012 CA 3011 CB 3010 CD1 3011 CB 3011 CB 3012 CA 3013 C 3014 O 3015 N 3016 CA 3017 CB 3018 CG2 3020 CD2 3021 C 3022 O 3021 C 3022 O 3023 N 3024 CA 3025 CB 3026 CG1	2972         CE1         PHE           2973         CE2         PHE           2974         CZ         PHE           2975         C         PHE           2976         O         PHE           2977         N         ILE           2979         CB         ILE           2980         CG2         ILE           2981         CG1         ILE           2982         CD1         ILE           2983         C         ILE           2984         O         ILE           2985         N         SER           2986         CA         SER           2987         CB         SER           2989         C         SER           2990         O         SER           2991         N         ILE           2992         CA         ILE           2993         CB         ILE           2994         CG2         ILE           2995         CG1         ILE           2997         C         ILE           2999         N         ALA           3001         CB         ALA <td>2972         CE1         PHE         C           2973         CE2         PHE         C           2974         CZ         PHE         C           2975         C         PHE         C           2976         O         PHE         C           2977         N         ILE         C           2979         CB         ILE         C           2979         CB         ILE         C           2980         CG2         ILE         C           2981         CG1         ILE         C           2982         CD1         ILE         C           2983         C         ILE         C           2984         O         ILE         C           2985         N         SER         C           2987         CB         SER         C           2989         C         SER         C           2991         N         ILE         C           2992         CA         ILE         C           2993         CB         ILE         C           2994         CG2         ILE         C           2995&lt;</td> <td>2972 CE1 PHE C 97 2973 CE2 PHE C 97 2974 CZ PHE C 97 2975 C PHE C 97 2976 O PHE C 97 2977 N ILE C 98 2978 CA ILE C 98 2979 CB ILE C 98 2980 CG2 ILE C 98 2981 CG1 ILE C 98 2983 C ILE C 98 2984 O ILE C 98 2985 N SER C 99 2986 CA SER C 99 2987 CB SER C 99 2988 OG SER C 99 2988 OG SER C 99 2989 C SER C 99 2990 O SER C 99 2991 N ILE C 100 2992 CA ILE C 100 2993 CB ILE C 100 2994 CG2 ILE C 100 2995 CG1 ILE C 100 2996 CD1 ILE C 100 2997 C ILE C 100 2998 O ILE C 100 2998 O ILE C 100 2999 N ALA C 101 3000 CA ALA C 101 3001 CB ALA C 101 3001 CB ALA C 101 3002 C ALA C 101 3003 O ALA C 101 3004 N VAL C 102 3005 CA VAL C 102 3006 CB VAL C 102 3007 CG1 VAL C 102 3010 O VAL C 102 3011 N GLY C 103 3012 CA GLY C 103 3014 O GLY C 103 3015 N LEU C 104 3016 CA LEU C 104 3017 CB LEU C 104 3018 CG LEU C 104 3019 CD1 LEU C 104 3010 CD2 LEU C 104 3010 CD2 LEU C 104 3010 CD2 LEU C 104 3011 CB LEU C 104 3012 CA GLY C 103 3015 N LEU C 104 3016 CA LEU C 104 3017 CB LEU C 104 3019 CD1 LEU C 104 3020 CD2 LEU C 104 3021 CD LEU C 104 3022 O LEU C 104 3023 N VAL C 105 3026 CG1 VAL C 105 3026 CG1 VAL C 105</td> <td>2972         CE1         PHE         C         97         53.135           2973         CE2         PHE         C         97         53.026           2974         CZ         PHE         C         97         53.769           2975         C         PHE         C         97         47.921           2976         O         PHE         C         97         46.849           2977         N         ILE         C         98         46.890           2978         CA         ILE         C         98         46.852           2980         CG2         ILE         C         98         46.857           2981         CG1         ILE         C         98         46.857           2981         CG1         ILE         C         98         46.857           2983         C         ILE         C         98         46.857           2983         C         ILE         C         98         45.978           2985         N         SER         C         99         45.999           2987         CB         SER         C         99         45.484</td> <td>  2972   CE1</td> <td>  2972   CE1</td> <td>  2972   CE1</td> <td>  2972   CE1</td>	2972         CE1         PHE         C           2973         CE2         PHE         C           2974         CZ         PHE         C           2975         C         PHE         C           2976         O         PHE         C           2977         N         ILE         C           2979         CB         ILE         C           2979         CB         ILE         C           2980         CG2         ILE         C           2981         CG1         ILE         C           2982         CD1         ILE         C           2983         C         ILE         C           2984         O         ILE         C           2985         N         SER         C           2987         CB         SER         C           2989         C         SER         C           2991         N         ILE         C           2992         CA         ILE         C           2993         CB         ILE         C           2994         CG2         ILE         C           2995<	2972 CE1 PHE C 97 2973 CE2 PHE C 97 2974 CZ PHE C 97 2975 C PHE C 97 2976 O PHE C 97 2977 N ILE C 98 2978 CA ILE C 98 2979 CB ILE C 98 2980 CG2 ILE C 98 2981 CG1 ILE C 98 2983 C ILE C 98 2984 O ILE C 98 2985 N SER C 99 2986 CA SER C 99 2987 CB SER C 99 2988 OG SER C 99 2988 OG SER C 99 2989 C SER C 99 2990 O SER C 99 2991 N ILE C 100 2992 CA ILE C 100 2993 CB ILE C 100 2994 CG2 ILE C 100 2995 CG1 ILE C 100 2996 CD1 ILE C 100 2997 C ILE C 100 2998 O ILE C 100 2998 O ILE C 100 2999 N ALA C 101 3000 CA ALA C 101 3001 CB ALA C 101 3001 CB ALA C 101 3002 C ALA C 101 3003 O ALA C 101 3004 N VAL C 102 3005 CA VAL C 102 3006 CB VAL C 102 3007 CG1 VAL C 102 3010 O VAL C 102 3011 N GLY C 103 3012 CA GLY C 103 3014 O GLY C 103 3015 N LEU C 104 3016 CA LEU C 104 3017 CB LEU C 104 3018 CG LEU C 104 3019 CD1 LEU C 104 3010 CD2 LEU C 104 3010 CD2 LEU C 104 3010 CD2 LEU C 104 3011 CB LEU C 104 3012 CA GLY C 103 3015 N LEU C 104 3016 CA LEU C 104 3017 CB LEU C 104 3019 CD1 LEU C 104 3020 CD2 LEU C 104 3021 CD LEU C 104 3022 O LEU C 104 3023 N VAL C 105 3026 CG1 VAL C 105 3026 CG1 VAL C 105	2972         CE1         PHE         C         97         53.135           2973         CE2         PHE         C         97         53.026           2974         CZ         PHE         C         97         53.769           2975         C         PHE         C         97         47.921           2976         O         PHE         C         97         46.849           2977         N         ILE         C         98         46.890           2978         CA         ILE         C         98         46.852           2980         CG2         ILE         C         98         46.857           2981         CG1         ILE         C         98         46.857           2981         CG1         ILE         C         98         46.857           2983         C         ILE         C         98         46.857           2983         C         ILE         C         98         45.978           2985         N         SER         C         99         45.999           2987         CB         SER         C         99         45.484	2972   CE1	2972   CE1	2972   CE1	2972   CE1

MOTA	3028	С	VAL	С	105	50.983	109.757	43.081	1.00	36.41	С
ATOM	3029	0	VAL	C	105	51.826	109.919	42.197	1.00		С
MOTA MOTA	3030 3031	N CA	SER SER	C	106 106	50.466 50.913	110.747 112.117	43.795 43.675	1.00 1.00	38.37 38.37	CC
ATOM	3032	CB	SER	č	106	49.866	112.985	42.987	1.00		č
ATOM	3033	OG	SER	C	106	49.983	112.877	41.579	1.00	46.65	С
ATOM ATOM	3034 3035	C O	SER SER	CC	106 106	51.106	112.526	45.138	1.00		C
ATOM	3036	N	ILE	Č	107	50.397 52.086	112.036 113.386	46.024 45.402	1.00 1.00	38.37 38.47	C
ATOM	3037	CA	ILE	С	107	52.354	113.808	46.769	1.00		č
ATOM ATOM	3038 3039	CB	ILE	C	107	53.748	113.341	47.203	1.00		C
ATOM	3040	CG2 CG1	ILE	O O	107 107	53.990 53.854	113.695 111.827	48.658 46.994	1.00 1.00		C
ATOM	3041	CD1	ILE	С	107	55.262	111.262	47.188	1.00		Č
ATOM	3042	C	ILE	C	107	52.245	115.316	46.907	1.00	38.47	С
ATOM ATOM	3043 3044	O N	ILE ARG	CC	107 108	52.987 51.312	116.061 115.764	46.271 47.741	1.00 1.00		C
ATOM	3045	CA	ARG	č	108	51.113	117.195	47.741	1.00		C
ATOM	3046	CB	ARG	C	108	49.660	117.570	47.641	1.00	71.06	С
ATOM ATOM	3047 3048	CG CD	ARG	C	108	49.439	119.069	47.577	1.00		С
ATOM	3049	NE	ARG ARG	C	108 108	48.032 47.937	119.422 120.833	47.139 46.779	1.00 1.00		CC
ATOM	3050	CZ	ARG	С	108	46.838	121.415	46.310	1.00		C
ATOM	3051	NH1	ARG	C	108	45.728	120.706	46.145	1.00	71.06	С
ATOM ATOM	3052 3053	NH2 C	ARG ARG	C	108 108	46.850 51.497	122.705 117.713	45.999 49.316	1.00 1.00		C
ATOM	3054	ŏ	ARG	С	108	50.983	117.242	50.331	1.00		C
ATOM	3055	N	GLY	C	109	52.418	118.672	49.351	1.00	47.30	С
ATOM ATOM	3056 3057	CA C	GLY GLY	CC	109 109	52.810 51.585	119.254 120.004	50.621 51.112	1.00 1.00		C
ATOM	3058	ŏ	GLY	č	109	51.084	120.891	50.423	1.00		C
ATOM	3059	N	VAL	С	110	51.079	119.640	52.284	1.00	51.39	С
ATOM ATOM	3060 3061	CA CB	VAL VAL	C	110 110	49.883 49.451	120.285 119.641	52.816	1.00		C
ATOM	3062	CG1	VAL	C	110	48.334	120.457	54.149 54.784	1.00 1.00		C
ATOM	3063	CG2	VAL	C	110	48.984	118.212	53.898	1.00		č
ATOM ATOM	3064 3065	C O	VAL	C	110	50.049	121.785	53.024	1.00		C
ATOM	3066	N	VAL ASP	C	110 111	49.20 <del>6</del> 51.142	122.576 122.168	52.602 53.672	1.00 1.00		C
ATOM	3067	CA	ASP	С	111	51.408	123.567	53.942	1.00	51.41	Č
ATOM ATOM	3068 3069	CB CG	ASP	C	111	52.613	123.690	54.871	1.00	79.49	C
ATOM	3070	OD1	ASP ASP	C	111 111	52.703 52.976	125.046 126.029	55.524 54.805	1.00 1.00		C C
ATOM	3071	OD2	ASP	Ċ	111	52.492	125.128	56.754	1.00		C
MOTA	3072	C	ASP	С	111	51.642	124.360	52.656	1.00	51.41	С
ATOM ATOM	3073 3074	0 N	ASP SER	CC	111 112	50.904 52.655	125.297 123.980	52.365 51.883	1.00 1.00		C
ATOM	3075	CA	SER	Ç.	112	52.968	124.680	50.638	1.00		C
MOTA	3076	CB	SER	C	112	54.268	124.149	50.036	1.00	47.62	С
ATOM ATOM	3077 3078	OG C	SER SER	CC	112 112	54.058 51.869	122.896 124.544	49.403 49.591	1.00		C
ATOM	3079	ŏ	SER	č	112	51.645	125.451	48.792	1.00 1.00		C C
ATOM	3080	N	GLY	С	113	51.189	123.404	49.592	1.00	48.43	С
ATOM ATOM	3081 3082	CA C	GLY GLY	CC	113 113	50.148 50.771	123.177 122.794	48.614	1.00		C
ATOM	3083	Ö	GLY	C	113	50.771	122.794	47.284 46.271	1.00 1.00		C C
ATOM	3084	N	LEU	С	114	52.083	122.575	47.280	1.00		č

### WO 02/24722

ATOM	3085	CA	LEU	С	114	52.775	122.218	46.049	1.00	50.49	С
ATOM	3086	СВ	LEU	C	114	54.153	122.889	46.001	1.00	42.01	Č
ATOM	3087	CG	LEU	C	114	54.179	124.422	46.069	1.00	42.01	Č
ATOM	3088	CD1	LEU	č	114		124.900	46.140	1.00	42.01	
ATOM				Č		55.622					C
	3089	CD2	LEU	С	114	53.473	125.016	44.857	1.00	42.01	C
ATOM	3090	С	LEU	C	114	52.925	120.709	45.877	1.00	50.49	С
MOTA	3091	0	LEU	С	114	53.099	119.966	46.848	1.00	50.49	С
ATOM	3092	N	TYR	C	115	52.852	120.265	44.627	1.00	38.22	C
ATOM	3093	CA	TYR	C	115	52.979	118.849	44.305	1.00	38.22	С
ATOM	3094	CB	TYR	C	115	52.156	118.512	43.060	1.00	51.09	С
ATOM	3095	CG	TYR	C	115	50.673	118.714	43.231	1.00	51.09	Č
ATOM	3096	CD1	TYR	C	115	49.875	117.735	43.819	1.00	51.09	č
ATOM	3097	CE1	TYR	č	115	48.500	117.921	43.968	1.00	51.09	č
ATOM	3098	CD2	TYR	č	115	50.062	119.890	42.798	1.00	51.09	č
ATOM	3099	CE2	TYR	Č							
ATOM		CZ		C	115	48.700	120.089	42.941	1.00	51.09	C
	3100		TYR		115	47.922	119.105	43.523	1.00	51.09	C
ATOM	3101	ОН	TYR	C	115	46.567	119.312	43.643	1.00	51.09	С
ATOM	3102	C	TYR	C	115	54.427	118.468	44.051	1.00	38.22	С
ATOM	3103	0	TYR	C	115	55.189	119.237	43.481	1.00	38.22	С
ATOM	3104	N	LEU	С	116	54.804	117.276	44.488	1.00	35.89	С
ATOM	3105	CA	LEU	C	116	56.148	116.796	44.265	1.00	35.89	C
ATOM	3106	CB	LEU	C	116	56.409	115.528	45.067	1.00	39.96	С
ATOM	3107	CG	LEU	C	116	57.839	115.007	44.919	1.00	39.96	С
ATOM	3108	CD1	LEU	. C	116	58.791	116.004	45.549	1.00	39.96	C
ATOM	3109	CD2	LEU	C	116	57.976	113.645	45.586	1.00	39.96	Č
ATOM	3110	C	LEU	č	116	56.230	116.473	42.781	1.00	35.89	č
ATOM	3111	Ö	LEU	č	116	55.378	115.748	42.235	1.00	35.89	č
ATOM	3112	Ň	GLY	č	117	57.244	117.016	42.121	1.00	33.68	Č
ATOM	3113	CA	GLY	č	117	57.397	116.748	40.710	1.00	33.68	
ATOM	3114	C	GLY	č	117						Ç
ATOM	3115	ŏ	GLY	č		58.821	116.374	40.387	1.00	33.68	C
ATOM	3116				117	59.726	116.635	41.181	1.00	33.68	C
		N	MET	C	118	59.025	115.727	39.245	1.00	38.46	C
MOTA	3117	CA	MET	C	118	60.375	115.386	38.823	1.00	38.46	С
ATOM	3118	CB	MET	C	118	60.690	113.908	39.021	1.00	34.68	C
ATOM	3119	CG	MET	C	118	62.165	113.655	38.798	1.00	34.68	С
ATOM	3120	SD	MET	C	118	62.632	111.942	38.667	1.00	34.68	С
ATOM	3121	CE	MET	С	118	62.965	111.531	40.409	1.00	34.68	С
ATOM	3122	С	MET	С	118	60.529	115.749	37.352	1.00	38.46	С
ATOM	3123	0	MET	С	118	59.799	115.242	36.497	1.00	38.46	С
ATOM	3124	N	ASN	С	119	61.478	116.633	37.059	1.00	41.83	С
ATOM	3125	CA	ASN	C	119	61.679	117.065	35.686	1.00	41.83	С
ATOM	3126	CB	ASN	С	119	62.261	118.485	35.649	1.00	35.45	С
ATOM	3127	CG	ASN	С	119	63.685	118.564	36.194	1.00	35.45	C
ATOM	3128	OD1	ASN	С	119	64.397	117.551	36.293	1.00	35.45	Č
ATOM	3129	ND2	ASN	C	119	64.116	119.784	36.532	1.00	35.45	Č
ATOM	3130	С	ASN	Č	119	62.535	116.122	34.843	1.00	41.83	č
ATOM	3131	ŏ	ASN	č	119	63.059	115.120	35.342	1.00	41.83	Č
ATOM	3132	Ň	GLU	č	120	62.637	116.458	33.556	1.00	46.89	Č
ATOM	3133	CA	GLU	Č	120	63.394	115.708	32.559	1.00	46.89	
ATOM	3134	CB	GLU	č							C
ATOM	3135	CG			120	63.540	116.575	31.302	1.00	87.11	C
			GLU	C	120	64.328	115.965	30.148	1.00	87.11	C
ATOM	3136	CD	GLU	C	120	63.459	115.182	29.174	1.00	87.11	C
ATOM	3137	OE1	GLU	C	120	62.364	115.673	28.826	1.00	87.11	C
ATOM	3138	OE2	GLU	C	120	63.880	114.085	28.740	1.00	87.11	C
ATOM	3139	C	GLU	C	120	64.775	115.285	33.071	1.00	46.89	C
ATOM	3140	0	GLU	C	120	65.247	114.198	32,740	1.00	46.89	С
ATOM	3141	N	LYS	С	121	65.410	116.135	33.882	1.00	45.70	С

#### WO 02/24722

**ATOM** 

**MOTA** 

**ATOM** 

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ATOM	3142	CA	LYS	C	121	66.743	115.855	34.423	1.00	45.70	C
ATOM	3143	CB	LYS	C	121	67.534	117.150	34.609	1.00	56.55	C
ATOM	3144	CG	LYS	C	121	67.560	118.084	33.415	1.00	56.55	С
ATOM	3145	CD	LYS	C	121	68.486	119.260	33.705	1.00	56.55	С
ATOM	3146	CE	LYS	С	121	68.118	120.503	32.904	1.00	56.55	С
ATOM	3147	NZ	LYS	С	121	66.794	121.077	33.307	1.00	56.55	C
ATOM	3148	С	LYS	С	121	66.733	115.112	35.755	1.00	45.70	С
ATOM	3149	0	LYS	С	121	67.775	114.977	36.406	1.00	45.70	С
ATOM	3150	N	GLY	С	122	65.561	114.642	36.171	1.00	45.28	С
ATOM	3151	CA	GLY	С	122	65.471	113.916	37.426	1.00	45.28	С
ATOM	3152	С	GLY	С	122	65.529	114.813	38.649	1.00	45.28	С
ATOM	3153	0	GLY	С	122	65.806	114.350	39.758	1.00	45.28	С
ATOM	3154	N	GLU	С	123	65.265	116.099	38.452	1.00	35.23	С
ATOM	3155	CA	GLU	С	123	65.294	117.040	39.567	1.00	35.23	С
ATOM	3156	CB	GLU	С	123	65.680	118.438	39.075	1.00	55.65	С
ATOM	3157	CG	GLU	С	123	67.082	118.563	38.523	1.00	55.65	С
ATOM	3158	CD	GLU	С	123	67.393	119.981	38.092	1.00	55.65	С
ATOM	3159	OE1	GLU	С	123	66.711	120.469	37.163	1.00	55.65	C
ATOM	3160	OE2	GLU	С	123	68.306	120.607	38.685	1.00	55.65	С
ATOM	3161	C	GLU	C	123	63.938	117.124	40.271	1.00	35.23	С
ATOM	3162	0	GLU	С	123	62.903	117.316	39.613	1.00	35.23	С
ATOM	3163	N	LEU	С	124	63.947	116.989	41.598	1.00	37.52	С
ATOM	3164	CA	LEU	С	124	62.709	117.089	42.371	1.00	37.52	С
ATOM	3165	СВ	LEU	С	124	62.872	116.504	43.784	1.00	27.36	С
ATOM	3166	CG	LEU	С	124	63.221	115.019	43.885	1.00	27.36	С
ATOM	3167	CD1	LEU	С	124	63.456	114.655	45.335	1.00	27.36	С
ATOM	3168	CD2	LEU	С	124	62.098	114.183	43.263	1.00	27.36	С
ATOM	3169	C	LEU	С	124	62.352	118.561	42.503	1.00	37.52	С
ATOM	3170	0	LEU	С	124	63.231	119.417	42.516	1.00	37.52	С
ATOM	3171	N	TYR	С	125	61.063	118.851	42.598	1.00	43.13	С
ATOM	3172	CA	TYR	С	125	60.620	120.221	42.764	1.00	43.13	С
ATOM	3173	CB	TYR	С	125	60.807	121.017	41.466	1.00	39.47	С
ATOM	3174	CG	TYR	С	125	59.862	120.627	40.354	1.00	39.47	С
ATOM	3175	CD1	TYR	С	125	60.105	119.499	39.564	1.00	39.47	С
ATOM	3176	CE1	TYR	C	125	59.213	119.117	38.564	1.00	39.47	С
ATOM	3177	CD2	TYR	С	125	58.705	121.363	40.117	1.00	39.47	С
ATOM	3178	CE2	TYR	С	125	57.806	120.993	39.130	1.00	39.47	C
ATOM	3170	CZ	TVD	$\sim$	125	E0 060	440 000	20.254	4 00	00.4	_

### WO 02/24722

ATOM	3199	OE2	GLU	С	128	53.275	128.978	40.883	1.00	93.76	С
ATOM	3200	C	GLU	Č	128	50.690	123.577	41.132	1.00	59.57	Č
MOTA	3201	0	GLU	С	128	49.720	123,394	41.868	1.00	59.57	С
ATOM	3202	N	LYS	С	129	50.769	123.077	39.904	1.00	49.47	С
ATOM	3203	CA	LYS	С	129	49.697	122.268	39.345	1.00	49.47	С
ATOM	3204	CB	LYS	С	129	49.317	122.792	37.958	1.00	99.12	С
ATOM	3205	CG	LYS	С	129	48.730	124.194	37.984	1.00	99.12	С
ATOM	3206	CD	LYS	С	129	48.259	124.639	36.608	1.00	99.12	С
ATOM	3207	CE	LYS	C	129	47.640	126.034	36.661	1.00	99.12	С
ATOM	3208	NZ	LYS	C	129	47.140	126.488	35.329	1.00	99.12	С
ATOM	3209	С	LYS	C	129	50.068	120.789	39.260	1.00	49.47	C
MOTA	3210 3211	0	LYS	C	129	51.244	120.419	39.266	1.00	49.47	C
ATOM ATOM	3211	N CA	LEU	C	130	49.050	119.946	39.188	1.00	60.11	C
ATOM	3213	CB	LEU	CC	130 130	49.265	118.517	39.094	1.00	60.11	C
ATOM	3214	CG	LEU	C	130	48.028 48.148	117.763 116.241	39.584 39.669	1.00	52.06	C
ATOM	3215	CD1	LEU	Č	130	49.190	115.241	40.699	1.00 1.00	52.06 52.06	C
ATOM	3216	CD2	LEU	Č	130	46.804	115.652	40.052	1.00	52.06	C
ATOM	3217	Č	LEU	č	130	49.531	118.172	37.639	1.00	60.11	Č
ATOM	3218	Ŏ	LEU	č	130	48.632	118.245	36.811	1.00	60.11	Č
ATOM	3219	N	THR	Č	131	50.765	117.802	37.324	1.00	39.89	Č
MOTA	3220	CA	THR	Č	131	51.115	117.452	35.955	1.00	39.89	Č
ATOM	3221	CB	THR	С	131	52.198	118.389	35.399	1.00	44.42	Č
ATOM	3222	.0G1	THR	C	131	53.430	118.166	36.100	1.00	44.42	C
ATOM	3223	CG2	THR	С	131	51.772	119.845	35.572	1.00	44.42	С
MOTA	3224	C	THR	С	131	51.636	116.028	35.900	1.00	39.89	С
ATOM	3225	0	THR	С	131	51.732	115.350	36.924	1.00	39.89	С
ATOM	3226	N	GLN	С	132	51.969	115.569	34.702	1.00	46.49	С
ATOM ATOM	3227 3228	CA CB	GLN GLN	C	132	52.488	114.220	34.545	1.00	46.49	С
ATOM	3229	CG	GLN	C	132	52.669	113.906	33.067	1.00	55.46	С
ATOM	3230	CD	GLN	C	132 132	51.365 51.522	113.607 113.510	32.367	1.00	55.46	C
ATOM	3231	OE1	GLN	č	132	52.541	113.033	30.870 30.382	1.00 1.00	55.46 55.46	C
ATOM	3232	NE2	GLN	č	132	50.506	113.033	30.362	1.00	55.46 55.46	CC
ATOM	3233	С	GLN	č	132	53.800	114.040	35.302	1.00	46.49	C
ATOM	3234	0	GLN	Č	132	54.164	112.921	35.656	1.00	46.49	č
MOTA	3235	N	GLU	C	133	54.497	115.144	35.566	1.00	41.72	Č
ATOM	3236	CA	GLU	С	133	55.765	115.082	36.294	1.00	41.72	Č
ATOM	3237	CB	GLU	С	133	56.607	116.334	36.039	1.00	47.86	C
ATOM	3238	CG	GLU	С	133	56.918	116.622	34.588	1.00	47.86	С
ATOM	3239	CD	GLU	C	133	58.126	117.534	34.430	1.00	47.86	С
ATOM	3240	OE1	GLU	C	133	58.312	118.442	35.271	1.00	47.86	С
ATOM ATOM	3241 3242	OE2	GLU GLU	C	133	58.890	117.349	33.459	1.00	47.86	Č
ATOM	3243	CO	GLU	C	133	55.534	114.940	37.799	1.00	41.72	C
ATOM	3244	N	CYS	C	133 134	56.487 54.264	114.903 114.855	38.581 38.194	1.00	41.72	C
ATOM	3245	CA	CYS	Č	134	53.898	114.720	39.602	1.00 1.00	41.75	C
ATOM	3246	CB	CYS	č	134	52.918	115.828	39.986	1.00	41.75 38.75	C
ATOM	3247	SG	CYS	Č	134	53.502	117.458	39.551	1.00	38.75	C
ATOM	3248	C	CYS	č	134	53.273	113.362	39.922	1.00	41.75	č
ATOM	3249	Ō	CYS	Č	134	52.767	113.145	41.021	1.00	41.75	Č
ATOM	3250	N	VAL	С	135	53.302	112.456	38.954	1.00	40.65	Č
ATOM	3251	CA	VAL	С	135	52.733	111.130	39.139	1.00	40.65	Č
ATOM	3252	СВ	VAL	C	135	51.840	110.751	37.939	1.00	28.55	С
ATOM	3253	CG1	VAL	C	135	51.197	109.396	38.165	1.00	28.55	С
ATOM	3254	CG2	VAL	C	135	50.766	111.822	37.746	1.00	28.55	C
ATOM	3255	С	VAL	С	135	53.875	110.141	39.293	1.00	40.65	С

ATOM	3256	0	VAL	С	135	54.719	110.015	38.419	1.00	40.65	С
ATOM	3257	N	PHE	C	136	53.902	109.444	40.419	1.00	42.01	С
ATOM ATOM	3258 3259	CA CB	PHE PHE	C	136	54.974	108.504	40.697	1.00		Ċ
ATOM	3260	CG	PHE	C	136 136	55.696 56.400	108.917 110.234	41.984 41.885	1.00 1.00		C
ATOM	3261	CD1	PHE	č	136	57.717	110.234	41.439	1.00		Č
ATOM	3262	CD2	PHE	Č	136	55.736	111.414	42.203	1.00		č
ATOM	3263	CE1	PHE	С	136	58.368	111.534	41.315	1.00	39.60	С
ATOM	3264	CE2	PHE	C	136	56.375	112.650	42.081	1.00		C
ATOM ATOM	3265 3266	CZ C	PHE PHE	C	136	57.696	112.712	41.635	1.00		C
ATOM	3267	Ö	PHE	C	136 136	54.522 53.387	107.067 106.783	40.838 41.226	1.00 1.00		C
ATOM	3268	Ň	ARG	č	137	55.435	106.160	40.524	1.00		Č
ATOM	3269	CA	ARG	С	137	55.167	104.742	40.643	1.00		Č
ATOM	3270	CB	ARG	C	137	56.026	103.948	39.666	1.00	54.39	С
ATOM ATOM	3271 3272	CG	ARG	C	137	55.779	104.298	38.226	1.00		C
ATOM	3272	NE	ARG ARG	C	137 137	56.588 56.189	103.397 103.549	37.325 35.930	1.00 1.00		C C
ATOM	3274	CZ	ARG	č	137	56.601	103.549	34.947	1.00		C
MOTA	3275	NH1	ARG	Č	137	57.430	101.749	35.203	1.00		Č
ATOM	3276	NH2	ARG	С	137	56.176	102.975	33.709	1.00	54.39	С
MOTA	3277	C	ARG	C	137	55.550	104.368	42.054	1.00		С
ATOM ATOM	3278 3279	O N	ARG GLU	C	137 138	56.718 54.566	104.475	42.430	1.00		C
ATOM	3280	CA	GLU	Č	138	54.812	103.954 103.547	42.841 44.222	1.00 1.00		C C
ATOM	3281	CB	GLU	Č	138	53.698	104.067	45.131	1.00		C
ATOM	3282	CG	GLU	С	138	53.764	103.577	46.564	1.00	51.01	č
MOTA	3283	CD	GLU	C	138	52.630	104.140	47.408	1.00	51.01	С
ATOM ATOM	3284 3285	OE1 OE2	GLU GLU	C	138 138	51.460	103.892	47.055	1.00		C
ATOM	3286	C	GLU	C	138	52.899 54.849	104.834 102.028	48.414 44.252	1.00 1.00		C C
<b>ATOM</b>	3287	ŏ	GLU	Č	138	53.891	101.371	43.871	1.00	50.01	C
ATOM	3288	N	GLN	С	139	55.964	101.466	44.684	1.00	48.38	Č
MOTA	3289	CA	GLN	C	139	56.074	100.018	44.732	1.00	48.38	С
ATOM ATOM	3290 3291	CB CG	GLN GLN	C	139 139	56.854 56.224	99.516	43.524	1.00		C
ATOM	3292	CD	GLN	C	139	57.148	99.881 99.561	42.190 41.040	1.00 1.00		C C
ATOM	3293	OE1	GLN	č	139	58.258	99.047	41.250	1.00		C
ATOM	3294	NE2	GLN	С	139	56.708	99.857	39.818	1.00		Č
ATOM	3295 3296	C	GLN	C	139	56.764	99.592	46.004	1.00	48.38	С
ATOM ATOM	3297	O N	GLN PHE	C	139 140	57.718 56.279	100.235 98.506	46.438	1.00	48.38	C
ATOM	3298	CA	PHE	č	140	56.853	98.012	46.600 47.843	1.00 1.00		C
ATOM	3299	СВ	PHE	Č	140	56.128	96.758	48.319	1.00		C
ATOM	3300	CG	PHE	C	140	56.599	96.272	49.657	1.00		Č
MOTA	3301	CD1	PHE	C	140	56.033	96.763	50.828	1.00		С
ATOM ATOM	3302 3303	CD2 CE1	PHE PHE	C	140 140	57.637 56.494	95.348 96.339	49.750	1.00		C
ATOM	3304	CE2	PHE	č	140	58.104	94.923	52.072 50.989	1.00 1.00		C
MOTA	3305	CZ	PHE	С	140	57.532	95.418	52.151	1.00		C
ATOM	3306	C	PHE	C	140	58.330	97.690	47.694	1.00		Č
ATOM ATOM	3307 3308	0	PHE	C	140	58.776	97.252	46.635	1.00		C
ATOM	3309	N CA	GLU GLU	C	141 141	59.082 60.502	97.895 97.616	48.766 48.736	1.00 1.00		
ATOM	3310	CB	GLU	Č	141	61.290	98.924	48.684	1.00		C
MOTA	3311	CG	GLU	С	141	62.814	98.771	48.681	1.00		C
ATOM	3312	CD	GLU	С	141	63.351	98.081	47.435	1.00		С

### WO 02/24722

ATOM	.3313	OE1	GLU	С	141	62.738	98.225	46.353	1.00	58.43	С
ATOM	3314	OE2	GLU	C	141	64.401	97.406	47.535	1.00	58.43	Č
ATOM	3315	C	GLU	Č	141	60.960	96.792	49.931	1.00	71.76	Č
ATOM	3316	ŏ	GLU	č	141	61,148	95.583	49.819	1.00	71.76	Č
ATOM	3317	N	GLU	č	142	61.119					
ATOM							97.443	51.079	1.00	88.30	Ç
	3318	CA	GLU	С	142	61.610	96.771	52.276	1.00	88.30	C
ATOM	3319	CB	GLU	C	142	63.128	97.005	52.366	1.00	89.84	С
ATOM	3320	CG	GLU	С	142	63.762	96.885	53.753	1.00	89.84	С
ATOM	3321	CD	GLU	С	142	64.235	98.229	54.316	1.00	89.84	С
MOTA	3322	OE1	GLU	С	142	64.832	99.030	53.560	1.00	89.84	С
ATOM	3323	OE2	GLU	С	142	64.023	98.477	55.522	1.00	89.84	С
ATOM	3324	С	GLU	С	142	60.930	97.196	53.576	1.00	88.30	C
ATOM	3325	0	GLU	С	142	60.989	98.360	53.964	1.00	88.30	С
ATOM	3326	N	ASN	С	143	60.288	96.240	54.242	1.00	62.50	Č
ATOM	3327	CA	ASN	C	143	59.619	96.485	55.519	1.00	62.50	Č
ATOM	3328	СВ	ASN	Č	143	60.656	96.683	56.625	1.00	82.91	Č.
ATOM	3329	CG	ASN	Č	143	61.461	95.431	56.896	1.00	82.91	Č
ATOM	3330	OD1	ASN	Č	143	60.933	94.442	57.399	1.00	82.91	
ATOM	3331	ND2	ASN	Č	143	62.746					C
	3332						95.464	56.555	1.00	82.91	C
ATOM		C	ASN	C	143	58.681	97.679	55.499	1.00	62.50	C
ATOM	3333	0	ASN	С	143	58.748	98.552	56.370	1.00	62.50	C
ATOM	3334	N	TRP	C	144	57.806	97.705	54.500	1.00	57.36	С
ATOM	3335	CA	TRP	C	144	56.824	98.765	54.334	1.00	57.36	С
ATOM	3336	СВ	TRP	С	144	56.110	99.002	55.660	1.00	49.59	С
ATOM	3337	CG	TRP	С	144	55.271	97.819	55.972	1.00	49.59	С
ATOM	3338	CD2	TRP	С	144	54.223	97.294	55.153	1.00	49.59	С
ATOM	3339	CE2	TRP	С	144	53.766	96.110	55.768	1.00	49.59	С
MOTA	3340	CE3	TRP	С	144	53.631	97.709	53.953	1.00	49.59	С
ATOM	3341	CD1	TRP	С	144	55.400	96.963	57.030	1.00	49.59	С
ATOM	3342	NE1	TRP	С	144	54.499	95.932	56.913	1.00	49.59	Č
ATOM	3343	CZ2	TRP	Č	144	52.734	95.333	55.223	1.00	49.59	č
ATOM	3344	CZ3	TRP	Č	144	52.604	96.937	53.409	1.00	49.59	č
ATOM	3345	CH2	TRP	Č	144	52.169	95.759	54.047	1.00	49.59	Č
ATOM	3346	C	TRP	Č	144	57.356	100.055	53.730	1.00	57.36	Č
ATOM	3347	ŏ	TRP	Č	144	56.619	100.035	53.561	1.00		
ATOM	3348	N	TYR	Č	145	58.644	101.025	53.406	1.00	57.36	C
	3349	CA	TYR	Č	145					52.11	C
ATOM	3350	CB		C		59.263	101.187	52.738	1.00	52.11	C
			TYR		145	60.785	101.147	52.863	1.00	49.32	C
ATOM	3351	CG	TYR	Ç ,	145	61.349	101.742	54.122	1.00	49.32	C
ATOM	3352	CD1	TYR	C	145	61.249	101.079	55.342	1.00	49.32	C
ATOM	3353	CE1	TYR	C	145	61.802	101.623	56.504	1.00	49.32	С
MOTA	3354	CD2	TYR	C	145	62.008	102.964	54.090	1.00	49.32	С
ATOM	3355	CE2	TYR	С	145	62.560	103.516	55.240	1.00	49.32	С
ATOM	3356	CZ	TYR	С	145	62.456	102.843	56.441	1.00	49.32	С
ATOM	3357	ОН	TYR	С	145	63.017	103.394	57.570	1.00	49.32	С
ATOM	3358	С	TYR	С	145	58.908	100.977	51.269	1.00	52.11	С
ATOM	3359	0	TYR	С	145	58.761	99.840	50.819	1.00	52.11	С
ATOM	3360	N	ASN	С	146	58.755	102.061	50.524	1.00	46.62	С
ATOM	3361	CA	ASN	С	146	58.451	101.947	49.107	1.00	46.62	С
ATOM	3362	СВ	ASN	С	146	57.070	102.513	48.779	1.00	47.96	Ċ
ATOM	3363	CG	ASN	С	146	55.984	101.963	49.666	1.00	47.96	Č
ATOM	3364	OD1	ASN	Č	146	55.822	100.750	49.791	1.00	47.96	Č
ATOM	3365	ND2	ASN	Č	146	55.220	102.857	50.283	1.00	47.96	č
ATOM	3366	C	ASN	Č	146	59.476	102.761	48.346	1.00	46.62	C
ATOM	3367	ŏ	ASN	Č	146	60.332	103.428	48.941	1.00	46.62	
ATOM	3368	N	THR	Č	147	59.401			1.00		C
							102.673	47.025		45.12	C
MOTA	3369	CA	THR	С	147	60.259	103.461	46.164	1.00	45.12	С

ATOM	3370	СВ	THR	С	147	61.132	102.623	45 400	4.00	38.21	^
ATOM	3371	OG1	THR	C	147	60.297	102.023	45.199 44.399	1.00 1.00	38.21	CC
ATOM	3372	CG2	THR	Č	147	62.151	101.808	45.969	1.00	38.21	C
ATOM	3373	C	THR	Č	147	59.249	104.225	45.342	1.00	45.12	č
ATOM	3374	Ō	THR	Č	147	58.133	103.750	45.111	1.00	45.12	Č
ATOM	3375	N	TYR	Č	148	59.639	105.416	44.922	1.00	38.47	Č
ATOM	3376	CA	TYR	Č	148	58.781	106.260	44.126	1.00	38.47	Č
ATOM	3377	СВ	TYR	Č	148	58.378	107.477	44.954	1.00	38.18	Č
<b>ATOM</b>	3378	CG	TYR	Ċ	148	57.494	107.098	46.113	1.00	38.18	Č
MOTA	3379	CD1	TYR	С	148	56.109	107.047	45.968	1.00	38.18	C
MOTA	3380	CE1	TYR	С	148	55.298	106.599	46.989	1.00	38.18	C
ATOM	3381	CD2	TYR	С	148	58.042	106.693	47.322	1.00	38.18	С
ATOM	3382	CE2	TYR	С	148	57.238	106.236	48.359	1.00	38.18	С
ATOM	3383	CZ	TYR	С	148	55.870	106.190	48.184	1.00	38.18	С
ATOM	3384	OH	TYR	С	148	55.072	105.723	49.197	1.00	38.18	С
ATOM	3385	C	TYR	C	148	59.610	106.648	42.933	1.00	38.47	С
ATOM	3386	0	TYR	C.	148	60.638	107.303	43.068	1.00	38.47	С
ATOM	3387	N	SER	C	149	59.183	106.221	41.755	1.00	40.04	С
ATOM	3388	CA	SER	C	149	59.933	106.546	40.557	1.00	40.04	С
ATOM	3389	CB	SER	C	149	60.432	105.273	39.872	1.00	43.44	C
ATOM ATOM	3390 3391	OG C	SER	C	149	59.375	104.635	39.181	1.00	43.44	C
ATOM	3392	C	SER SER	CC	149 149	59.035	107.303	39.615	1.00	40.04	C
ATOM	3393	N	SER	C	150	57.825 59.630	107.099 108.191	39.610	1.00	40.04	C
ATOM	3394	CA	SER	C	150	58.873	108.191	38.828	1.00	43.81	C
ATOM	3395	CB	SER	C.	150	59.799	108.959	37.860 37.060	1.00 1.00	43.81	C
ATOM	3396	ÖĞ	SER	C .	150	59.130	110.395	37.000 35.918	1.00	37.57 37.57	CC
ATOM	3397	Č	SER	Č	150	58.184	107.987	36.914	1.00	43.81	C
ATOM	3398	ō	SER	Č	150	58.746	106.957	36.531	1.00	43.81	C
ATOM	3399	N	ASN	Č	151	56.962	108.319	36.539	1.00	40.85	Č
ATOM	3400	CA	ASN	Č	151	56.205	107.486	35.632	1.00	40.85	č
ATOM	3401	CB	ASN	С	151	54.745	107.446	36.073	1.00	48.31	Č
ATOM	3402	CG T	ASN	С	151	53.958	106.377	35.364	1.00	48.31	Č
ATOM	3403	OD1	ASN	С	151	54.349	105.211	35.356	1.00	48.31	Č
ATOM	3404	ND2	ASN	С	151	52.844	106.762	34.770	1.00	48.31	C
ATOM	3405	C	ASN	С	151	56.323	108.110	34.246	1.00	40.85	С
ATOM	3406	0	ASN	С	151	55.640	107.718	33.312	1.00	40.85	С
ATOM	3407	N	LEU	C	152	57.216	109.080	34.121	1.00	40.06	С
ATOM	3408	CA	LEU	C	152	57.405	109.780	32.861	1.00	40.06	С
ATOM ATOM	3409	CB	LEU	C	152	56.957	111.232	33.034	1.00	41.49	С
ATOM	3410 3411	CG CD1	LEU	C	152	57.124	112.179	31.855	1.00	41.49	С
ATOM	3412	CD1	LEU LEU	C	152	56.460	111.593	30.617	1.00	41.49	C
ATOM	3413	C	LEU	C	152 152	56.506 58.840	113.520 109.752	32.218	1.00	41.49	C
ATOM	3414	ŏ	LEU	C	152	59.073		32.345	1.00	40.06	C
ATOM	3415	N	TYR	Č	153	59.802	109.688 109.800	31.146 33.252	1.00	40.06	C
ATOM	3416	CA	TYR	C	153	61.193	109.800	32.839	1.00 1.00	43.87 43.87	C
ATOM	3417	CB	TYR	Č	153	61.866	111.075	33.372	1.00	43.67 35.17	C
ATOM	3418	CG	TYR	č	153	61.189	112.317	32.860	1.00	35.17 35.17	C
ATOM	3419	CD1	TYR	Č	153	61.026	112.521	31.483	1.00	35.17	Ç
ATOM	3420	CE1	TYR	Č	153	60.382	113.657	30.994	1.00	35.17	Č
ATOM	3421	CD2	TYR	С	153	60.692	113.279	33.738	1.00	35.17	Č
ATOM	3422	CE2	TYR	C	153	60.050	114.417	33.261	1.00	35.17	Č
ATOM	3423	CZ	TYR	С	153	59.898	114.601	31.890	1.00	35.17	Č
ATOM	3424	ОН	TYR	С	153	59.269	115.724	31.413	1.00	35,17	Č
ATOM	3425	C	TYR	C	153	61.949	108.589	33.272	1.00	43.87	С
ATOM	3426	0	TYR	С	153	61.646	107.994	34.304	1.00	43.87	С

ATOM	3427	N	LYS	С	154	62.939	108.218	32,471	1.00	45.23	С
MOTA	3428	CA	LYS	C	154	63.742	107.036	32.744	1.00	45.23	C
ATOM	3429	CB	LYS	С	154	62.946	105.784	32.376	1.00	55.04	С
MOTA	3430	CG	LYS	С	154	62.530	105.792	30.921	1.00	55.04	С
MOTA	3431	CD	LYS	С	154	62.062	104.444	30.432	1.00	55.04	С
MOTA	3432	CE	LYS	С	154	61.727	104.521	28.948	1.00	55.04	С
ATOM	3433	NZ	LYS	С	154	61.382	103.186	28.370	1.00	55.04	С
ATOM	3434	С	LYS	С	154	65.021	107.042	31.918	1.00	45.23	С
ATOM	3435	0	LYS	С	154	65.247	107.932	31.098	1.00	45.23	С
ATOM	3436	N	HIS	С	155	65.849	106.032	32.154	1.00	43.29	С
ATOM	3437	CA	HIS	С	155	67.082	105.840	31.407	1.00	43.29	С
ATOM	3438	CB	HIS	С	155	68.026	104.935	32.192	1.00	45.88	С
ATOM	3439	CG	HIS	C	155	68.584	105.569	33.428	1.00	45.88	С
ATOM	3440	CD2	HIS	C	155	68.266	105.409	34.735	1.00	45.88	C
ATOM	3441	ND1	HIS	C	155	69.597	106.503	33.392	1.00	45.88	C
ATOM	3442	CE1	HIS	C	155	69.881	106.891	34.624	1.00	45.88	C
ATOM	3443	NE2	HIS	C	155	69.086	106.243	35.458	1.00	45.88	C
MOTA	3444	C	HIS	С	155	66.621	105.133	30.135	1.00	43.29	C
MOTA	3445	0	HIS	C	155	66.205	103.980	30.187	1.00	43.29	C
MOTA	3446	N	VAL	C	156	66.665	105.825	29.001	1.00	41.62	C
MOTA	3447 3448	CA CB	VAL	C	156	66.216	105.241	27.743	1.00	41.62	Č
ATOM ATOM	3449	CG1	VAL VAL	CC	156	66.141	106.293	26.619	1.00	38.44	Č
ATOM	3450	CG2	VAL	C	156	65.068	107.330	26.938	1.00	38.44	C
ATOM	3451	C	VAL	C	156 156	67.508 67.082	106.952	26.435	1.00	38.44	C
ATOM	3452	ŏ	VAL	C	156	66.609	104.097 103.257	27.234 26.475	1.00	41.62	C
ATOM	3453	N	ASP	Č	157	68.343	103.257	27.643	1.00 1.00	41.62	C
ATOM	3454	CA	ASP	č	157	69.233	103.000	27.170	1.00	42.66 42.66	C
ATOM	3455	CB	ASP	č	157	70.695	103.466	27.170	1.00	47.85	C
ATOM	3456	CG	ASP	č	157	71.116	103.810	28.691	1.00	47.85	č
ATOM	3457	OD1	ASP	č	157	70.240	104.155	29.513	1.00	47.85	č
ATOM	3458	OD2	ASP	Č	157	72.332	103.751	28.984	1.00	47.85	č
ATOM	3459	С	ASP	Č	157	69.050	101.667	27.888	1.00	42.66	č
ATOM	3460	0	ASP	Ċ	157	69.129	100.608	27.263	1.00	42.66	Č
ATOM	3461	N	THR	С	158	68.795	101.720	29.191	1.00	45.51	Č
ATOM	3462	CA	THR	С	158	68.617	100.511	29.985	1.00	45.51	Č
ATOM	3463	CB	THR	С	158	69.473	100.560	31.267	1.00	52.41	Ċ
ATOM	3464	OG1	THR	С	158	68.983	101.595	32.130	1.00	52.41	С
ATOM	3465	CG2	THR	С	158	70.932	100.838	30.925	1.00	52.41	С
ATOM	3466	C	THR	С	158	67.165	100.301	30.394	1.00	45.51	С
ATOM	3467	0	THR	С	158	66.781	99.214	30.819	1.00	45.51	С
ATOM	3468	N	GLY	C	159	66.359	101.345	30.268	1.00	41.78	С
ATOM	3469	CA	GLY	C	159	64.965	101.238	30.643	1.00	41.78	С
ATOM	3470	C	GLY	C	159	64.757	101.414	32.136	1.00	41.78	С
ATOM	3471	0	GLY	C	159	63.618	101.533	32.593	1.00	41.78	С
ATOM	3472	N	ARG	C	160	65.845	101.436	32.903	1.00	39.85	С
ATOM	3473	CA	ARG	C	160	65.734	101.606	34.347	1.00	39.85	C
ATOM	3474	CB	ARG	C	160	67.095	101.393	35.010	1.00	69.78	C
ATOM ATOM	3475 3476	CG CD	ARG	C	160	67.652	100.006	34.724	1.00	69.78	Č
ATOM	3477	NE	ARG ARG	C	160 160	68.850 68.460	99.647	35.586	1.00	69.78	C
ATOM	3478	CZ	ARG	C	160 160		99.291	36.944	1.00	69.78	C
ATOM	3479	NH1	ARG	C	160	69.316 70.621	98.944 98.903	37.898 37.643	1.00 1.00	69.78	C
ATOM	3480	NH2	ARG	Č	160	68.870	98.642	37.643 39.110	1.00	69.78 69.78	C
ATOM	3481	C	ARG	Č	160	65.128	102.967	34.718	1.00	39.85	C
ATOM	3482	ŏ	ARG	č	160	65.246	103.952	33.978	1.00	39.85	C
ATOM	3483	Ň	ARG	Č	161	64.479	102.994	35.877	1.00	39.91	Č
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### WO 02/24722

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ATOM	3484	CA	ARG	C	161	63.760	104.161	36.397	1.00	39.91	C
ATOM	3485	CB	ARG	C	161	62.639	103.640	37.295	1.00	51.78	C
ATOM ATOM	3486 3487	CG CD	ARG	C	161	61.673	102.773	36.529	1.00	51.78	C
ATOM	3488	NE	ARG ARG	C	161 161	60.928 60.408	103.678	35.593	1.00	51.78 51.78	C
ATOM	3489	CZ	ARG	C	161	59.597	103.015 103.608	34.418 33.548	1.00 1.00	51.78	CC
ATOM	3490	NH1	ARG	č	161	59.224	103.808	33.742	1.00	51.78 51.78	C
ATOM	3491	NH2	ARG	č	161	59.166	104.873	32.482	1.00	51.78 51.78	Č
ATOM	3492	C	ARG	č	161	64.509	105.269	37.135	1.00	39.91	C
ATOM	3493	ŏ	ARG	č	161	65.636	105.089	37.573	1.00	39.91	č
ATOM	3494	Ň	TYR	Č	162	63.854	106.423	37.248	1.00	39.62	č
ATOM	3495	CA	TYR	Č	162	64.378	107.583	37.978	1.00	39.62	Č
ATOM	3496	CB	TYR	C	162	64.043	108.894	37.272	1.00	43.92	Č
ATOM	3497	CG	TYR	С	162	64.828	109.224	36.027	1.00	43.92	С
ATOM	3498	CD1	TYR	С	162	65.860	108.407	35.568	1.00	43.92	С
ATOM	3499	CE1	TYR	С	162	66.576	108.742	34.417	1.00	43.92	С
ATOM	3500	CD2	TYR	С	162	64.536	110.378	35.302	1.00	43.92	С
MOTA	3501	CE2	TYR	C	162	65.239	110.714	34.164	1.00	43.92	С
ATOM	3502	CZ	TYR	C <sub>1</sub>	162	66.253	109.900	33.725	1.00	43.92	С
ATOM	3503	ОН	TYR	C	162	66.938	110.259	32.591	1.00	43.92	C
ATOM	3504	C	TYR	C	162	63.647	107.580	39.322	1.00	39.62	C
MOTA	3505	0	TYR	C	162	62.426	107.748	39.361	1.00	39.62	C
ATOM ATOM	3506 3507	N CA	TYR TYR	CC	163	64.386	107.406	40.413	1.00	37.53	C
ATOM	3508	CB	TYR	C	163 163	63.796 64.380	107.353 106.174	41.747 42.536	1.00 1.00	37.53	CC
ATOM	3509	CG	TYR	C	163	63.990	104.836	42.536 41.964	1.00	45.85 45.85	C
ATOM	3510	CD1	TYR	č	163	64.654	104.303	40.860	1.00	45.85	Č
ATOM	3511	CE1	TYR	č	163	64.219	103.123	40.264	1.00	45.85	Č
ATOM	3512	CD2	TYR	č	163	62.888	104.145	42.466	1.00	45.85	č
ATOM	3513	CE2	TYR	Č	163	62.446	102.968	41.881	1.00	45.85	Č
MOTA	3514	CZ	TYR	C	163	63.108	102.464	40.780	1.00	45.85	Č
ATOM	3515	ОН	TYR	С	163	62.624	101.328	40.172	1.00	45.85	C
ATOM	3516	С	TYR	С	163	63.929	108.610	42.593	1.00	37.53	C
ATOM	3517	0	TYR	С	163	64.946	109.309	42.547	1.00	37.53	С
ATOM	3518	N	VAL	C	164	62.873	108.880	43.364	1.00	34.97	C
ATOM	3519	CA	VAL	C	164	62.828	110.001	44.290	1.00	34.97	С
ATOM	3520	CB	VAL	C	164	61.439	110.111	44.968	1.00	31.66	C
ATOM ATOM	3521 3522	CG1 CG2	VAL	C	164	61.479	111.154	46.086	1.00	31.66	C
ATOM	3523	CGZ	VAL VAL	C	164 164	60.378 63.849	110.483	43.938	1.00	31.66	C
ATOM	3524	ŏ	VAL	C	164	63.898	109.598 108.439	45.341	1.00	34.97	C
ATOM	3525	Ň	ALA	č	165	64.669	110.531	45.733 45.806	1.00 1.00	34.97 36.75	C
ATOM	3526	CA	ALA	č	165	65.672	110.165	46.794	1.00	36.75	C
ATOM	3527	СВ	ALA	č	165	66.783	109.359	46.113	1.00	31.20	Č
ATOM	3528	C	ALA	Č	165	66.276	111.340	47.541	1.00	36.75	č
ATOM	3529	0	ALA	Č	165	66.374	112.439	47.013	1.00	36.75	Č
ATOM	3530	N	LEU	С	166	66.674	111.086	48.781	1.00	44.55	Č
ATOM	3531	CA	LEU	С	166	67.311	112.090	49.626	1.00	44.55	Č
ATOM	3532	СВ	LEU	С	166	66.497	112.337	50.905	1.00	33.70	С
ATOM	3533	CG	LEU	С	166	65.128	112.988	50.687	1.00	33.70	С
ATOM	3534	CD1	LEU	C	166	64.403	113.171	52.016	1.00	33.70	С
ATOM	3535	CD2	LEU	C	166	65.316	114.328	49.995	1.00	33.70	C
MOTA	3536	C	LEU	C	166 166	68.672	111.521	49.985	1.00	44.55	C
ATOM ATOM	3537 3538	0	LEU	C	166 167	68.784	110.349	50.348	1.00	44.55	C
ATOM	3539	N CA	ASN ASN	C	167 167	69.708 71.053	112.341	49.882	1.00	46.44 46.44	C
ATOM	3540	CB	ASN	C	167	71.053	111.877 112.851	50.202 49.631	1.00 1.00	46.44 43.06	C
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# WO 02/24722

# FIGURE 2 Continued

# PCT/IL01/00871

ATOM ATOM ATOM ATOM ATOM ATOM ATOM ATOM	3541 3542 3543 3544 3545 3546 3547 3548 3549	CG OD1 ND2 C O N CA CB	ASN ASN ASN ASN ASN LYS LYS LYS	000000000	167 167 167 167 167 168 168 168	72.140 72.416 71.873 71.307 70.527 72.407 72.798 74.184 74.278	112.799 111.748 113.925 111.664 112.106 110.976 110.689 110.041 108.744	48.124 47.549 47.473 51.696 52.545 52.001 53.380 53.412 52.628	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	43.06 C 43.06 C 43.06 C 46.44 C 46.44 C 66.98 C 66.98 C 99.56 C	0000000
ATOM ATOM ATOM ATOM ATOM ATOM ATOM	3550 3551 3552 3553 3554 3555 3556 3557	CD CE NZ C O N CA CB	LYS LYS LYS LYS LYS ASP ASP	00000000	168 168 168 168 168 169 169	75.692 75.790 77.184 72.820 72.720 72.944 72.982 74.044	108.186 106.924 106.400 111.963 111.913 113.104 114.393 115.289	52.634 51.788 51.741 54.212 55.436 53.539 54.214 53.565	1.00 1.00 1.00 1.00 1.00 1.00 1.00	99.56 C 99.56 C 99.56 C 66.98 C 66.98 C 53.34 C 53.34 C	00000000
ATOM ATOM ATOM ATOM ATOM ATOM ATOM ATOM	3558 3559 3560 3561 3562 3563 3564 3565 3566	CG OD1 OD2 C O N CA C	ASP ASP ASP ASP GLY GLY GLY	000000000	169 169 169 169 169 170 170 170	73.620 72.801 74.112 71.622 71.495 70.609 69.288 68.960 67.831	115.806 115.134 116.879 115.097 116.221 114.447 115.050 115.919 116.379	52.203 51.541 51.787 54.199 54.684 53.635 53.599 52.395 52.258	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	62.36 C 62.36 C 62.36 C 53.34 C 56.33 C 56.33 C 56.33 C	000000
ATOM ATOM ATOM ATOM ATOM ATOM ATOM ATOM	3567 3568 3569 3570 3571 3572 3573 3574	N CA CB OG1 CG2 C O N	THR THR THR THR THR THR THR PRO	00000000	171 171 171 171 171 171 171 171	69.930 69.685 70.984 71.881 71.639 69.071 69.305 68.260	116.159 116.967 117.567 116.505 118.476 116.107 114.895 116.719	51.523 50.334 49.769 49.411 50.792 49.238 49.179 48.364	1.00 1.00 1.00 1.00 1.00 1.00 1.00	45.41 C 45.41 C 41.09 C 41.09 C 41.09 C 45.41 C 45.41 C 46.08 C	
ATOM ATOM ATOM ATOM ATOM ATOM ATOM ATOM	3575 3576 3577 3578 3579 3580 3581 3582 3583	CD CB CC CO NCA CB	PRO PRO PRO PRO PRO PRO ARG ARG	000000000	172 172 172 172 172 172 173 173 173	67.762 67.636 66.656 67.302 68.665 69.519 68.574 69.479 69.773	118.105 115.965 116.968 118.290 115.485 116.255 114.206 113.598 112.149	48.390 47.277 46.679 46.970 46.261 45.820 45.903 44.938 45.334	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	39.25 C 46.08 C 39.25 C 39.25 C 46.08 C 46.08 C 42.90 C 42.90 C 59.68 C	
ATOM ATOM ATOM ATOM ATOM ATOM ATOM	3584 3585 3586 3587 3588 3589 3590 3591	CG CD NE CZ NH1 NH2 C	ARG ARG ARG ARG ARG ARG ARG	00000000	173 173 173 173 173 173 173 173	70.917 71.158 72.291 73.567 73.889 74.525 68.819 67.596	111.513 110.080 109.465 109.787 110.721 109.185 113.631 113.679	44.565 45.016 44.329 44.538 45.424 43.847 43.567 43.464	1.00 1.00 1.00 1.00 1.00 1.00 1.00	59.68 C 59.68 C 59.68 C 59.68 C 59.68 C 59.68 C 42.90 C 42.90 C	
ATOM ATOM ATOM ATOM ATOM ATOM	3592 3593 3594 3595 3596 3597	N CA CB CG CD OE1	GLU GLU GLU GLU GLU	000000	174 174 174 174 174 174	69.625 69.081 70.181 70.694 71.941 72.997	113.618 113.628 113.942 115.359 115.565 115.018	42.513 41.164 40.155 40.240 39.418 39.802	1.00 1.00 1.00 1.00 1.00 1.00	45.54 C 45.54 C 99.99 C 99.99 C 99.99 C	

#### WO 02/24722

### FIGURE 2 Continued

3650 N

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ATOM	3598	OE2	GLU	С	174	71.864	116.268	38.387	1.00	99.99	С
ATOM	3599	C	GLU	č	174	68.483	112.260	40.865	1.00	45.54	Č
ATOM	3600	ŏ	GLU	č	174	69.078	111.228	41.190	1.00	45.54	Č
ATOM	3601	N	GLY	C							C
ATOM		CA	GLY	C	175	67.303	112.255	40.254	1.00	48.09	
	3602				175	66.652	111.002	39.923	1.00	48.09	C
ATOM	3603	C	GLY	C	175	67.429	110.165	38.923	1.00	48.09	C
ATOM	3604	0	GLY	C	175	67.243	108.950	38.850	1.00	48.09	C
ATOM	3605	N	THR	C	176	68.297	110.814	38.150	1.00	45.73	C
ATOM	3606	CA	THR	C	176	69.100	110,126	37.145	1.00	45.73	C
ATOM	3607	CB	THR	C	176	69.703	111.109	36.129	1.00	35.76	C
ATOM	3608	OG1	THR	C	176	70.482	112.087	36.827	1.00	35.76	C
ATOM	3609	CG2	THR	C	176	68.612	111.794	35.320	1.00	35.76	C
ATOM	3610	C	THR	C	176	70.254	109.350	37.772	1.00	45.73	С
ATOM	3611	0	THR	Ç	176	70.929	108.576	37.092	1.00	45.73	C
ATOM	3612	N	ARG	C	177	70.470	109.553	39.066	1.00	50.01	C
ATOM	3613	CA	ARG	C	177	71.549	108.880	39.776	1.00	50.01	С
ATOM	3614	CB	ARG	C	177	72.503	109.918	40.370	1.00	67.80	C
ATOM	3615	CG	ARG	C	177	73.068	110.895	39.349	1.00	67.80	C
ATOM	3616	CD	ARG	C	177	74.077	111.823	40.001	1.00	67.80	C
ATOM	3617	NE	ARG	C	177	75.105	111.060	40.700	1.00	67.80	С
ATOM	3618	CZ	ARG	С	177	75.975	111.580	41.559	1.00	67.80	С
ATOM	3619	NH1	ARG	С	177	75.947	112.879	41.828	1.00	67.80	С
ATOM	3620	NH2	ARG	C	177	76.862	110.795	42.161	1.00	67.80	С
ATOM	3621	С	ARG	С	177	70.995	107.995	40.886	1.00	50.01	С
ATOM	3622	0	ARG	С	177	71.487	108.016	42.016	1.00	50.01	С
ATOM	3623	N	THR	С	178	69.978	107.205	40.563	1.00	45.45	С
ATOM	3624	CA	THR	С	178	69.355	106.345	41.564	1.00	45.45	С
ATOM	3625	CB ·	THR	С	178	68.033	106.948	42.043	1.00	33.70	С
ATOM	3626	0G1	THR	С	178	67.175	107.134	40.908	1.00	33.70	С
ATOM	3627	CG2	THR	C	178	68.270	108.290	42.723	1.00	33.70	С
ATOM	3628	C	THR	C	178	69.046	104.949	41.057	1.00	45.45	С
ATOM	3629	0	THR	C	178	68.777	104.746	39.871	1.00	45.45	С
ATOM	3630	N	LYS	C	179	69.085	103.985	41.966	1.00	42.46	С
ATOM	3631	CA	LYS	C	179	68.768	102.607	41.629	1.00	42.46	C
ATOM	3632	CB	LYS	C	179	70.042	101.765	41.558	1.00	71.18	C
ATOM	3633	CG	LYS	C	179	70.915	102.133	40.373	1.00	71.18	C
MOTA	3634	CD	LYS	C	179	72.081	101.174	40.190	1.00	71.18	C
ATOM	3635	CE	LYS	C	179	72.936	101.569	38.981	1.00	71.18	C
MOTA	3636	NZ	LYS	C	179	74.059	100.617	38.729	1.00	71.18	C
MOTA	3637	C	LYS	C	179	67.798	102.072	42.684	1.00	42.46	Ç
MOTA	3638	0	LYS	C	179	68.010	102.235	43.893	1.00	42.46	C
ATOM	3639	N	ARG	C	180	66.724	101.450	42.211	1.00	51.30	Ç
MOTA	3640	CA	ARG	C	180	65.692	100.906	43.078	1.00	51.30	C
MOTA	3641	CB	ARG	C	180	64.901	99.817	42.345	1.00	47.59	C
ATOM	3642	CG	ARG	C	180	63.857	99.129	43.223	1.00	47.59	C
ATOM	3643	CD	ARG	C	180	63.351	97.875	42.573	1.00	47.59	C
ATOM	3644	NE	ARG	C	180	62.601	98.150	41.352	1.00	47.59	С
ATOM	3645	CZ	ARG	С	180	61.343	98.583	41.327	1.00	47.59	C
ATOM	3646	NH1	ARG	C	180	60.691	98.793	42.466	1.00	47.59	C
ATOM	3647	NH2	ARG	C	180	60.735	98.795	40.163	1.00	47.59	C
ATOM	3648	C	ARG	C	180	66.149	100.341	44.418	1.00	51.30	C
ATOM	3649	0	ARG	C	180	65.505	100.573	45.434	1.00	51.30	C
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#### WO 02/24722

ATOM	3655	ND1	HIS	С	181	66.339	96.294	45.105	1.00	70.93	С
ATOM	3656	CE1	HIS	Č	181	65.798	95.454	44,241	1.00	70.93	Č
<b>ATOM</b>	3657	NE2	HIS	C.	181	66.635		43.230	1.00	70.93	C
ATOM	3658	С	HIS	С	181	68.554	99.842	46.607	1.00	50.09	C
ATOM	3659	0	HIS	С	181	68.812	99.440	47.738	1.00	50.09	С
ATOM	3660	N	GLN	С	182	68,986	101.012	46.150	1.00	53.85	Č
ATOM	3661	CA	GLN	С	182	69.802	101.881	46.996	1.00	53.85	C
ATOM	3662	CB	GLN	С	182	70.357	103.049	46.176	1.00	61.78	С
ATOM	3663	CG	GLN	С	182	71.310	102.612	45.078	1.00	61.78	С
ATOM	3664	CD	GLN	С	182	71.881	103.773	44.284	1.00	61.78	С
ATOM	3665	OE1	GLN	С	182	71.174	104.429	43.514	1.00	61.78	С
ATOM	3666	NE2	GLN	С	182	73.170	104.035	44.472	1.00	61.78	С
ATOM	3667	C	GLN	C	182	68.985	102.399	48.182	1.00	53.85	С
ATOM	3668	0	GLN	C	182	67.777	102.623	48.078	1.00	53.85	C ·
ATOM	3669	N	LYS	С	183	69.663	102.582	49.308	1.00	54.51	С
ATOM	3670	CA	LYS	C	183	69.047	103.051	50.548	1.00	54.51	C
ATOM	3671	CB	LYS	C	183	70.130	103.130	51.629	1.00	77.75	C
ATOM ATOM	3672 3673	CG CD	LYS	C	183	69.647	103.424	53.033	1.00	77.75	C
ATOM	3674	CE	LYS LYS	CC	183	70.825	103.403	54.011	1.00	77.75	C
ATOM	3675	NZ	LYS	C	183 183	70.393 71.526	103.704 103.617	55.443	1.00	77.75	C
ATOM	3676	C	LYS	Č	183	68.307	103.617	56.411 50.442	1.00 1.00	77.75 54.51	C
ATOM	3677	ŏ	LYS	č	183	67.215	104.592	50.442 50.988	1.00		C
ATOM	3678	Ň	PHE	č	184	68.878	105.357	49.725	1.00	54.51 47.10	C
ATOM	3679	CA	PHE	č	184	68.243	106.670	49.614	1.00	47.10	C
ATOM	3680	СВ	PHE	č	184	69.262	107.727	49.168	1.00	60.40	Č
ATOM	3681	CG	PHE	č	184	70.100	107.325	47.995	1.00	60.40	C
ATOM	3682	CD1	PHE	C	184	69.526	106.748	46.867	1.00	60.40	č
ATOM	3683	CD2	PHE	С	184	71.468	107.583	47.995	1.00	60.40	Č
ATOM	3684	CE1	PHE	С	184	70.302	106.433	45.747	1.00	60.40	Č
ATOM	3685	CE2	PHE	С	184	72.256	107.276	46.882	1.00	60.40	С
ATOM	3686	CZ	PHE	С	184	71.670	106.699	45.754	1.00	60.40	С
ATOM	3687	C	PHE	С	184	66.984	106.786	48.757	1.00	47.10	С
ATOM	3688	0	PHE	C	184	66.435	107.874	48.612	1.00	47.10	С
ATOM	3689	N	THR	С	185	66.528	105.670	48.196	1.00	41.07	С
MOTA MOTA	3690 3691	CA	THR	C	185	65.325	105.655	47.367	1.00	41.07	С
ATOM	3692	CB OG1	THR	C	185	65.539	104.852	46.066	1.00	41.06	С
ATOM	3693	CG2	THR THR	C	185	65.820	103.485	46.390	1.00	41.06	C
ATOM	3694	C	THR	Č	185 185	66.692 64.188	105.431 104.991	45.254 48.145	1.00 1.00	41.06	C
ATOM	3695	ŏ	THR	č	185	63.075	104.837	47.639	1.00	41.07	C
ATOM	3696	Ň	HIS	Č	186	64.476	104.595	49.381	1.00	41.07 41.75	C
ATOM	3697	CA	HIS	Č	186	63.479	103.931	50.211	1.00	41.75	C
ATOM	3698	СВ	HIS	Č	186	64.139	102.810	51.018	1.00	62.27	Č
MOTA	3699	CG	HIS	C	186	64.809	101.772	50.170	1.00	62.27	Č
ATOM	3700	CD2	HIS	С	186	64.964	101.681	48.827	1.00	62.27	Č
ATOM	3701	ND1	HIS	С	186	65.429	100.661	50.701	1.00	62.27	Č
ATOM:	3702	CE1	HIS	С	186	65.936	99.932	49.723	1.00	62.27	C
ATOM	3703	NE2	HIS	С	186	65.668	100.529	48.577	1.00	62.27	С
ATOM	3704	C	HIS	C	186	62.770	104.905	51.145	1.00	41.75	С
ATOM	3705	0	HIS	C	186	63.398	105.558	51.975	1.00	41.75	С
ATOM	3706	N	PHE	C	187	61.452	104.991	51.007	1.00	38.60	С
MOTA	3707	CA	PHE	C	187	60.670	105.898	51.831	1.00	38.60	C
ATOM ATOM	3708	CB	PHE	C	187	60.068	107.017	50.969	1.00	39.11	C
ATOM	3709 3710	CG CD1	PHE	C	187 187	61.084	108.010	50.464	1.00	39.11	C
ATOM	3711	CD2	PHE PHE	C	187 187	61.869 61.269	107.723 109.224	49.348 51.117	1.00	39.11	C
, ti Oivi	0711	CDZ	FIRE	U	107	01.209	103.424	51.117	1.00	39.11	С

#### WO 02/24722

ATOM	3712	CE1	PHE	С	187	62.824	108.630	48.887	1.00	39.11	С
ATOM	3713	CE2	PHE	C	187	62.226	110.142	50.661	1.00	39.11	С
<b>ATOM</b>	3714	CZ	PHE	С	187	63.004	109.839	49.542	1.00	39.11	С
ATOM	3715	С	PHE	С	187	59.565	105.182	52.587	1.00	38.60	С
ATOM	3716	0	PHE	С	187	58.882	104.318	52.044	1.00	38.60	С
ATOM	3717	N	LEU	С	188	59.390	105.555	53.848	1.00	47.29	C
MOTA	3718	CA	LEU	С	188	58.368	104.948	54.684	1.00	47.29	С
MOTA	3719	CB	LEU	С	188	58.979	104.517	56.020	1.00	52.27	С
ATOM	3720	CG	LEU	С	188	58.046	103.951	57.094	1.00	52.27	С
ATOM	3721	CD1	LEU	С	188	57.445	102.640	56.629	1.00	52.27	С
MOTA	3722	CD2	LEU	С	188	58.831	103.741	58.378	1.00	52.27	С
ATOM	3723	C	LEU	С	188	57.216	105.915	54.936	1.00	47.29	С
ATOM	3724	0	LEU	C	188	57.392	106.966	55.557	1.00	47.29	C
ATOM	3725	N	PRO	C	189	56.023	105.591	54.422	1.00	47.58	C
ATOM	3726	CD	PRO	C	189	55.626	104.545	53.464	1.00	37.11	C
MOTA	3727	CA	PRO	C	189	54.922	106.515	54.676	1.00	47.58	C
ATOM ATOM	3728 3729	CB CG	PRO	C	189	53.779	105.936	53.838	1.00	37.11	C
ATOM	3730	C	PRO PRO	C	189	54.486	105.213	52.731	1.00	37.11	C
ATOM	3731	Ö	PRO	CC	189	54.644	106.436	56.173	1.00	47.58	C
ATOM	3732	N	ARG	C	189 190	54.253 54.888	105.391 107.528	56.683	1.00	47.58	C
ATOM	3733	CA	ARG	C	190	54.655	107.526	56.878	1.00	53.62 53.62	C
ATOM	3734	CB	ARG	C	190	55.822	107.363	58.308 59.017	1.00 1.00	53.62 57.94	C
ATOM	3735	CG	ARG	Č	190	56.972	107.325	59.374	1.00	57.94 57.94	C
ATOM	3736	CD	ARG	č	190	58.217	107.323	59.830	1.00	57.94 57.94	C
ATOM	3737	NE	ARG	č	190	57.946	109.118	60.827	1.00	57.94	Č
ATOM	3738	CZ	ARG	č	190	57.447	108.892	62.038	1.00	57.94	č
ATOM	3739	NH1	ARG	č	190	57.159	107.652	62.416	1.00	57.94	Č
ATOM	3740	NH2	ARG	С	190	57.243	109.900	62.871	1.00	57.94	Č
ATOM	3741	С	ARG	C	190	53.355	108.300	58.578	1.00	53.62	Č
ATOM	3742	0	ARG	С	190	52.907	109.107	57.762	1.00	53.62	C
ATOM	3743	N	PRO	С	191	52.714	108.010	59.722	1.00	60.11	С
ATOM	3744	CD	PRO	С	191	53.045	106.930	60.669	1.00	55.97	С
MOTA	3745	CA	PRO	С	191	51.453	108.655	60.097	1.00	60.11	С
ATOM	3746	СВ	PRO	С	191	50.887	107.701	61.138	1.00	55.97	С
ATOM	3747	CG	PRO	C	191	52.113	107.224	61.827	1.00	55.97	С
ATOM	3748	C	PRO	C	191	51.656	110.064	60.651	1.00	60.11	С
ATOM	3749	0	PRO	C	191	52.767	110.463	61.008	1.00	60.11	С
ATOM	3750	N	VAL	C	192	50.570	110.818	60.719	1.00	54.92	C
ATOM	3751	CA	VAL	C	192	50.637	112.177	61.231	1.00	54.92	C
ATOM ATOM	3752	CB CC4	VAL	C	192	50.114	113.183	60.188	1.00	49.31	C
ATOM	3753 3754	CG1 CG2	VAL	CC	192	50.034	114.575	60.798	1.00	49.31	C
ATOM	3755	C	VAL VAL	C	192 192	51.034 49.836	113.187 112.340	58.968	1.00	49.31	Č
ATOM	3756	Ö	VAL	C	192	48.669	111.954	62.518 62.597	1.00	54.92	C
ATOM	3757	N	ASP	C	192	50.483	111.954	63.526	1.00	54.92 56.92	C
ATOM	3758	CA	ASP	C	193	49.851	113.159	64.814	1.00 1.00	56.92 56.92	C
ATOM	3759	CB	ASP	C	193	50.924	113.139	65.879	1.00	65.93	C
ATOM	3760	CG	ASP	č	193	50.371	113.347	67.289	1.00	65.93	č
ATOM	3761	OD1	ASP	Č	193	49.235	113.825	67.512	1.00	65.93	č
ATOM	3762	OD2	ASP	č	193	51.089	112.840	68.179	1.00	65.93	č
ATOM	3763	Č	ASP	Č	193	49.004	114.424	64.661	1.00	56.92	Č
ATOM	3764	Ō	ASP	č	193	49.523	115.485	64.298	1.00	56.92	Č
ATOM	3765	N	PRO	С	194	47.694	114.329	64.937	1.00	79.75	Č
ATOM	3766	CD	PRO	С	194	46.978	113.108	65.345	1.00	100.00	Č
ATOM	3767	CA	PRO	С	194	46.765	115.460	64.831	1.00	79.75	С
ATOM	3768	СВ	PRO	С	194	45.446	114.868	65.323	1.00	100.00	С

WO 02/24722 PCT/IL01/00871

ATOM	3769	CG	PRO	С	194	45.560	113.429	64.953	1.00	100.00	С
ATOM	3770	С	PRO	С	194	47.184	116.672	65.664	1.00	79.75	С
ATOM	3771	0	PRO	С	194	47.107	117.817	65.210	1.00	79.75	С
ATOM	3772	N	ASP	С	195	47.635	116.405	66.884	1.00	70.88	С
ATOM	3773	CA	ASP	С	195	48.043	117.453	67.808	1.00	70.88	С
ATOM	3774	CB	ASP	С	195	48.136	116.877	69.220	1.00	92.45	С
MOTA	3775	CG	ASP	С	195	46.861	116.173	69.644	1.00	92.45	С
ATOM	3776	OD1	ASP	С	195	45.794	116.826	69.634	1.00	92.45	С
ATOM	3777	OD2	ASP	С	195	46.927	114.970	69.983	1.00	92.45	C
ATOM	3778	С	ASP	С	195	49.357	118.131	67.445	1.00	70.88	С
ATOM	3779	0	ASP	С	195	49.591	119.280	67.825	1.00	70.88	С
ATOM	3780	N	LYS	С	196	50.218	117.428	66.717	1.00	79.05	С
ATOM	3781	CA	LYS	С	196	51.504	117.996	66.328	1.00	79.05	С
ATOM	3782	CB	LYS	С	196	52.490	116.884	65.964	1.00	74.82	С
ATOM	3783	CG	LYS	С	196	52.750	115.883	67.072	1.00	74.82	С
ATOM	3784	CD	LYS	С	196	53.272	116.553	68.322	1.00	74.82	С
MOTA	3785	CE	LYS	С	196	53.425	115.545	69.454	1.00	74.82	С
ATOM	3786	NZ	LYS	С	196	53.707	116.210	70.766	1.00	74.82	С

#### WO 02/24722

ATOM	3787	С	LYS	С	196	51.356	118.957	65.150	1.00	79.05	C.
ATOM	3788	0	LYS	C	196	52,226	119.801	64.918	1.00	79.05	C
ATOM	3789	N	VAL	C	197	50.250	118.829	64.417	1.00	61.75	Č
ATOM	3790	CA	VAL	C	197	49.973	119.677	63.256	1.00	61.75	Č
ATOM	3791	СВ	VAL	Č	197	49.442	118.832	62.083	1.00	88.39	Č
ATOM	3792	CG1	VAL	č	197	49.254	119.704	60.855	1.00	88.39	Č
ATOM	3793	CG2	VAL	Č	197	50.391	117.695	61.797	1.00	88.39	Č
ATOM	3794	C	VAL	č	197	48.924	120.748	63.585	1.00	61.75	č
ATOM	3795	ŏ	VAL	č	197	47.724	120.740	63.493	1.00	61.75	C
ATOM	3796	Ň	PRO	č	198	49.362	121.960	63.967	1.00	68.67	Č
ATOM	3797	CD	PRO	č	198	50.758	121.900	64.217	1.00	60.06	C
ATOM	3798	CA	PRO	č	198	48.449	123.058	64.310	1.00	68.67	C
ATOM	3799	CB	PRO	č	198						
ATOM	3800	CG	PRO	C		49.399	124.212	64.603	1.00	60.06	C
ATOM		C			198	50.591	123.513	65.172	1.00	60.06	C
ATOM	3801		PRO	C	198	47.436	123.410	63.225	1.00	68.67	C
	3802	0.	PRO	C	198	46.257	123.607	63.506	1.00	68.67	C
ATOM	3803	N	GLU	C	199	47.899	123.484	61.985	1.00	73.27	C
ATOM	3804	CA	GLU	C	199	47.040	123.826	60.857	1.00	73.27	С
ATOM	3805	СВ	GLU	C	199	47.890	123.905	59.593	1.00	100.00	С
ATOM	3806	CG	GLU	C	199	49.179	124.679	59.789	1.00	100.00	С
ATOM	3807	CD	GLU	С	199	48.940	126.062	60.360	1.00	100.00	С
ATOM	3808	OE1	GLU	C	199	48.209	126.851	59.721	1.00	100.00	С
ATOM	3809	OE2	GLU	C	199	49.483	126.358	61.447	1.00	100.00	С
ATOM	3810	С	GLU	С	199	45.874	122.859	60.624	1.00	73.27	С
ATOM	3811	0	GLU	С	199	44.870	123.221	60.014	1.00	73.27	С
ATOM	3812	N	LEU	С	200	46.003	121.633	61.114	1.00	90.93	С
ATOM	3813	CA	LEU	C	200	44.967	120.623	60.918	1.00	90.93	С
ATOM	3814	CB	LEU	С	200	45.221	119.409	61.817	1.00	63.86	С
ATOM	3815	CG	LEU	.C	200	44.269	118.230	61.589	1.00	63.86	С
ATOM	3816	CD1	LEU	С	200	44.364	117.755	60.142	1.00	63.86	С
ATOM	3817	CD2	LEU	C	200	44.621	117.101	62.550	1.00	63.86	С
ATOM	3818	С	LEU	C	200	43.529	121.093	61.117	1.00	90.93	С
ATOM	3819	0	LEU	С	200	42.614	120.543	60.511	1.00	90.93	С
ATOM	3820	N	TYR	С	201	43.308	122.098	61.954	1.00	78.12	С
ATOM	3821	CA	TYR	С	201	41.939	122.541	62.155	1.00	78.12	С
ATOM	3822	CB	TYR	С	201	41.784	123.185	63.559	1.00	76.20	С
ATOM	3823	CG	TYR	С	201	41.961	124.683	63.682	1.00	76.20	С
ATOM	3824	CD1	TYR	С	201	40.894	125.550	63.453	1.00	76.20	C
ATOM	3825	CE1	TYR	C	201	41.042	126.927	63.581	1.00	76.20	C
ATOM	3826	CD2	TYR	С	201	43.187	125.235	64.044	1.00	76.20	Č
ATOM	3827	CE2	TYR	С	201	43.347	126.615	64.173	1.00	76.20	C
ATOM	3828	CZ	TYR	С	201	42.269	127.456	63.940	1.00	76.20	Č
ATOM	3829	ОН	TYR	С	201	42.404	128.825	64.061	1.00	76.20	C
ATOM	3830	С	TYR	С	201	41.461	123.425	60.988	1.00	78.12	Č
ATOM	3831	0	TYR	С	201	41.658	124.641	60.935	1.00	78.12	Č
ATOM	3832	N	LYS	С	202	40.879	122.738	60.012	1.00	100.00	Č
ATOM	3833	CA	LYS	Č	202	40.330	123.334	58.801	1.00	100.00	Č
ATOM	3834	СВ	LYS	C	202	41.296	123.177	57.628	1.00	86.46	Č
ATOM	3835	CG	LYS	C	202	41.577	121.728	57.235	1.00	86.46	Č
ATOM	3836	CD	LYS	Č	202	42.359	121.645	55.927	1.00	86.46	Č
ATOM	3837	CE	LYS	č	202	43.677	122.416	55.990 <sup>-</sup>	1.00	86.46	č
ATOM	3838	NZ	LYS	č	202	44.631	121.864	56.998	1.00	86.46	Č
ATOM	3839	C	LYS	č	202	39.084	122.503	58.549	1.00	100.00	Č
ATOM	3840	ŏ	LYS	č	202	38.406	122.641	57.532	1.00	100.00	Č
ATOM	3841	Ň	ASP	č	203	38,817	121.616	59.500	1.00	97.06	C
ATOM	3842	CA	ASP	č	203	37.659	120.741	59.465	1.00	97.06	č
ATOM	3843	CB	ASP	Č	203	38.054	119.328	59.878	1.00	99.98	C
/ (1 OIVI	50-75	J	/ IOF	0	200	JJ.JJ-4	110.020	03.070	1.00	33.30	U

ATOM	3844	CG	ASP	С	203	38.808	119.300	61.187	1.00	99.98	С
ATOM	3845	OD1	ASP	Č	203	39.982	119.731	61.211	1.00	99.98	č
ATOM	3846	OD2	ASP	Č	203	38.221	118.857	62.193	1.00	99.98	č
ATOM	3847	C	ASP	č	203	36.627	121.297	60.441	1.00	97.06	č
ATOM	3848	ŏ	ASP	č	203	35.569	120.701	60.654	1.00	97.06	Č
ATOM	3849	Ň	ILE	č	204	36.952	122.438	61.046	1.00		C
ATOM	3850	CA	ILE							67.87	
				C	204	36.032	123.085	61.972	1.00	67.87	C
ATOM	3851	СВ	ILE	С	204	36.773	123.813	63.114	1.00	79.05	C
ATOM	3852	CG2	ILE	C	204	35.774	124.321	64.126	1.00	79.05	С
ATOM	3853	CG1	ILE	C	204	37.704	122.852	63.848	1.00	79.05	С
ATOM	3854	CD1	ILE	C	204	38.327	123.463	65.077	1.00	79.05	С
ATOM	3855	Ç	ILE	С	204	35.177	124.096	61.196	1.00	67.87	С
ATOM	3856	0	ILE	С	204	35.659	124.752	60.274	1.00	67.87	С
ATOM	3857	N	LEU	С	205	33.911	124.208	61.589	1.00	95.77	C
ATOM	3858	CA	LEU	C	205	32.932	125.092	60.951	1.00	95.77	С
ATOM	3859	СВ	LEU	C	205	31.664	125.151	61.819	1.00	100.00	C
ATOM	3860	CG	LEU	C	205	31.021	123.821	62.249	1.00	100.00	С
ATOM ·	3861	CD1	LEU	С	205	29.889	124.093	63.234	1.00	100.00	С
ATOM	3862	CD2	LEU	С	205	30.504	123.064	61.026	1.00	100.00	C
ATOM	3863	С	LEU	С	205	33.366	126.522	60.601	1.00	95.77	C
ATOM	3864	0	LEU	С	205	32.652	127.219	59.882	1.00	95.77	Č
ATOM	3865	N	SER	С	206	34.516	126.963	61.107	1.00	75.84	Č
ATOM	3866	CA	SER	С	206	35.027	128.317	60.840	1.00	75.84	č
ATOM	3867	CB	SER	C	206	35.253	128.534	59.342	1.00	58.82	č
ATOM	3868	OG	SER	C	206	35.564	129.900	59.083	1.00	58.82	Č
ATOM	3869	С	SER	Č	206	34.177	129.482	61.354	1.00	75.84	Č
ATOM	3870	Ö	SER	Č	206	32.952	129.526	61.076	1.00	75.84	Č
ATOM	3871	OXT	SER	Č	206	34.777	130.366	62.007	1.00	52.10	č
ATOM	3872	СВ	PRO	Ď	49	66.824	78.431	-12.855	1.00	84.09	Ď
ATOM	3873	CG	PRO	Ď	49	65.930	77.235	-12.554	1.00	84.09	Ď
ATOM	3874	C	PRO	Ď	49	67.642	79.232	-10.616	1.00	84.09	D
ATOM	3875	Ö	PRO	Ď	49	68.213	80.320	-10.542	1.00	84.09	Ď
ATOM	3876	Ň	PRO	Ď	49	67.924	76.869	-11.366	1.00	84.09	D
ATOM	3877	CD	PRO	Ď	49	66.891	76.118	-12.101	1.00	84.09	D
ATOM	3878	CA	PRO	Ď	49	67.905	78.289	-11.787	1.00	84.09	D
ATOM	3879	N	ALA	Ď	50	66.771	78.819	-9.704	1.00	75.27	
ATOM	3880	CA	ALA	Ď	50	66.463	79.643	-8.546	1.00	75.27 75.27	D
ATOM	3881	СВ	ALA	Ď	50 50	65.119	79.243	-7.964	1.00		D
ATOM	3882	C	ALA	Ď	50 50	67.571	79.446	-7.515	1.00	100.00	D
ATOM	3883	ŏ	ALA	Ď	50 50	68.080	80.413	-6.941	1.00	75.27	D
ATOM	3884	N	VAL	Ď	51	67.944	78.187	-7.290	1.00	75.27	D
ATOM	3885	CA	VAL	Ď	51	68.996	77.858	-6.337		72.18	D
ATOM	3886	CB	VAL	Ď	51	69.176			1.00	72.18	D
ATOM	3887	CG1	VAL	Ď	51	70.457	76.325	-6.184	1.00	58.48	D
ATOM	3888	CG2	VAL	Ď	51	67.987	76.024	-5.407 5.454	1.00	58.48	D
ATOM	3889	C	VAL	Ď			75.729	-5.451 6.700	1.00	58.48	D
ATOM	3890	ŏ	VAL	Ď	51	70.321	78.450	-6.789	1.00	72.18	D
ATOM	3891	N	THR		51 52	71.118	78.900	-5.965	1.00	72.18	D
ATOM	3892	CA		D	52 52	70.548	78.449	-8.100	1.00	62.28	D
ATOM	3893	CB	THR	D	52 53	71.785	78.976	-8.666	1.00	62.28	D
ATOM	3894		THR	D	52 53	71.877	78.690	-10.188	1.00	100.00	D
		OG1	THR	D	52	73.163	79.091	-10.675	1.00	100.00	D
MOTA	3895	CG2	THR	D	52	70.811	79.452	-10.947	1.00	100.00	D
MOTA	3896	C	THR	D	52	71.911	80.478	-8.420	1.00	62.28	D
ATOM ATOM	3897	0	THR	D	52	72.986	80.972	-8.088	1.00	62.28	D
	3898	N C^	ASP	D	53	70.811	81.203	-8.583	1.00	58.35	D
MOTA	3899	CA	ASP	D	53	70.831	82.634	-8.348	1.00	58.35	D
ATOM	3900	CB	ASP	D	53	69,556	83.277	-8.886	1.00	100.00	D

АТОМ	3901	CG	ASP	D	53	69.555	83.376	-10.397	1.00	100.00 D
ATOM	3902	OD1	ASP	Ď	53	69.761	82.339	-11.062	1.00	100.00 D
ATOM	3903	OD2	ASP	D	53	69.350	84.492	-10.918	1.00	100.00 D
MOTA	3904	C	ASP	D	53	70.980	82.902	-6.853	1.00	58.35 D
ATOM ATOM	3905 3906	0 N	ASP LEU	D D	53 54	71.590 70.434	83.892 82.007	-6.446 -6.036	1.00 1.00	58.35 D 51.66 D
ATOM	3907	CA	LEU	Ď	54	70.434	82.152	-0.030 -4.595	1.00	51.66 D
ATOM	3908	СВ	LEU	D	54	69.611	81.159	-3.896	1.00	43.71 D
ATOM	3909	CG	LEU	D	54	69.558	81.287	-2.371	1.00	43.71 D
MOTA	3910	CD1 CD2	LEU	D	54 54	69.054	82.685	-2.001	1.00	43.71 D
ATOM ATOM	3911 3912	CD2	LEU LEU	D D	54 54	68.656 71.977	80.205 81.917	-1.787 -4.165	1.00 1.00	43.71 D 51.66 D
ATOM	3913	ŏ	LEU	Ď	54	72.528	82.677	-3.370	1.00	51.66 D
ATOM	3914	Ν	ASP	D	55	72.601	80.872	-4.693	1.00	58.79 D
ATOM	3915	CA	ASP	D	55	73.982	80.600	-4.329	1.00	58.79 D
ATOM ATOM	3916 3917	CB CG	ASP ASP	D D	55 55	74.441 73.811	79.251 78.096	-4.874 -4.137	1.00 1.00	70.83 D 70.83 D
ATOM	3918	OD1	ASP	Ď	55	73.639	78.211	-2.903	1.00	70.83 D
<b>MOTA</b>	3919	OD2	ASP	Ď	55	73.497	77.074	-4.784	1.00	70.83 D
ATOM	3920	C	ASP	D	55	74.891	81.698	-4.835	1.00	58.79 D
MOTA	3921 3922	0	ASP	D	55 56	75.857	82.060	-4.170	1.00	58.79 D
ATOM ATOM	3922	N CA	HIS HIS	D D	56 56	74.582 75.383	82.232 83.311	-6.010 -6.570	1.00 1.00	59.43 D 59.43 D
ATOM	3924	CB	HIS	Ď	56	74.833	83.731	-7.936	1.00	91.91 D
ATOM	3925	CG	HIS	D	56	75.533	84.914	-8.532	1.00	91.91 D
ATOM	3926	CD2	HIS	D	56	75.068	86.132	-8.902	1.00	91.91 D
ATOM ATOM	3927 3928	ND1 CE1	HIS HIS	D D	56 56	76.884 77.222	84.921	-8.805 -9.318	1.00 1.00	91.91 D
ATOM	3929	NE2	HIS	D	56	76.139	86.092 86.845	-9.316 -9.388	1.00	91.91 D 91.91 D
ATOM	3930	C	HIS	Ď	56	75.323	84.492	-5.603	1.00	59.43 D
ATOM	3931	0	HIS	D	56	76.330	85.145	-5.318	1.00	59.43 D
MOTA	3932	N	LEU	D	57 57	74.130	84.744	-5.081	1.00	47.08 D
ATOM ATOM	3933 3934	CA CB	LEU	D D	57 57	73.933 72.434	85.845 86.065	-4.161 -3.938	1.00 1.00	47.08 D 61.70 D
ATOM	3935		LEU	Ď	57	72.000	87.364	-3.261	1.00	61.70 D
ATOM	3936	CD1	LEU	D	57	72.801	88.541	-3.788	1.00	61.70 D
ATOM	3937	CD2	LEU	D	57	70.525	87.567	-3.517	1.00	61.70 D
ATOM ATOM	3938 3939	CO	LEU LEU	D D	57 - 57	74.652 75.218	85.593	-2.838	1.00	47.08 D
ATOM	3940	N	LYS	Ď	5 <i>1</i> 58	75.216 74.643	86.518 84.341	-2.247 -2.382	1.00 1.00	47.08 D 31.13 D
ATOM	3941	CA	LYS	Ď	58	75.309	83.998	-1.134	1.00	31.13 D
ATOM	3942	CB	LYS	D	58	75.046	82.538	-0.777	1.00	35.52 D
MOTA	3943	CG	LYS	D	58	73.614	82.288	-0.322	1.00	35.52 D
ATOM ATOM	3944 3945	CD CE	LYS LYS	D D	58 58	73.443 72.066	80.883 80.705	0.205 0.788	1.00 1.00	35.52 D 35.52 D
ATOM	3946	NZ	LYS	Ď	58	71.923	79.393	1.458	1.00	35.52 D
ATOM	3947	С	LYS	D	58	76.808	84.263	-1.238	1.00	31.13 D
ATOM	3948	0	LYS	D	58	77.445	84.706	-0.265	1.00	31.13 D
ATOM ATOM	3949 3950	N CA	GLY GLY	D D	59	77.354 78.765	84.004	-2.430	1.00	38.25 D
ATOM	3951	C	GLY	Ď	59 59	79.093	84.225 85.704	-2.684 -2.610	1.00 1.00	38.25 D 38.25 D
ATOM	3952	ō	GLY	Ď	59	80.106	86.087	-2.018	1.00	38.25 D
MOTA	3953	N	ILE	D	. 60	78.243	86.534	-3.218	1.00	35.08 D
MOTA	3954	CA	ILE	D	· 60	78.433	87.987	-3.182	1.00	35.08 D
ATOM ATOM	3955 3956	CB CG2	ILE ILE	D D	60 60	77.232 77.513	88.763 90.256	-3.806 -3.771	1.00 1.00	40.77 D 40.77 D
ATOM	3957	CG1	ILE	Ď	60	76.946	88.280	-5.239	1.00	40.77 D

ATOM ATOM	3958 3959	CD1 C	ILE	D D	60 60	78.061 78.497	88.489 88.375	-6.226 -1.703	1.00 1.00	40.77 35.08	D D
ATOM	3960	0	ILE	D	60	79.406	89.079	-1.261	1.00	35.08	Ď
ATOM ATOM	3961 3962	N CA	LEU LEU	D D	61 61	77.522 77.452	87.896 88.200	-0.938 0.485	1.00 1.00	· 37.37 37.37	D.
ATOM	3963	CB	LEU	D	61	76.125	87.713	1.071	1.00	42.70	D D
ATOM	3964	CG	LEU	D	61	74.921	88.664	1.029	1.00	42.70	Ď
ATOM	3965	CD1	LEU	D	61	74.498	88.975	-0.404	1.00	42.70	D
ATOM ATOM	3966 3967	CD2 C	LEU	D D	61 61	73.776 78.606	88.006 87.629	1.784 1.304	1.00 1.00	42.70	D
ATOM	3968	ŏ	LEU	Ď	61	78.756	87.029 87.975	2.467	1.00	37.37 37.37	D D
ATOM	3969	N	ARG	D	62	79.410	86.747	0.712	1.00	36.92	Ď
ATOM	3970	CA	ARG	D	62	80.538	86.183	1.446	1.00	36.92	D
ATOM ATOM	3971 3972	CB CG	ARG ARG	D D	62 62	80.653	84.666	1.228	1.00	56.32	D
ATOM	3973	CD	ARG	Ď	62 62	79.572 79.863	83.838 82.348	1.930 1.825	1.00 1.00	56.32 56.32	D D
ATOM	3974	NE.	ARG	Ď	62	78.653	81.562	1.577	1.00	56.32	D
ATOM	3975	CZ	ARG	D	62	77.859	81.063	2.523	1.00	56.32	D
ATOM ATOM	3976 3977	NH1 NH2	ARG ARG	D D	62 62	78.135 76.776	81.252	3.807 2.180	1.00	56.32	D
ATOM	3978	C	ARG	D	62	81.822	80.379 86.889	1.028	1.00 1.00	56.32 36.92	D D
ATOM	3979	ŏ	ARG	Ď	62	82.926	86.392	1.244	1.00	36.92	Ď
ATOM	3980	N	ARG	D	63	81.670	88.059	0.423	1.00	37.56	D
ATOM ATOM	3981 3982	CA CB	ARG ARG	D D	63	82.831	88.828	0.018	1.00	37.56	D
ATOM	3983	CG	ARG	Ď	63 63	82.446 82.249	89.891 89.273	-0.999 -2.359	1.00 1.00	47.92 47.92	D D
ATOM	3984	CD	ARG	Ď	63	81.915	90.272	-3.415	1.00	47.92	Ď
ATOM	3985	NE	ARG	D	63	81.769	89.602	-4.700	1.00	47.92	D
ATOM ATOM	3986 3987	CZ NH1	ARG ARG	D D	63 63	81.385 81.108	90.209	-5.817	1.00	47.92	D
ATOM	3988	NH2	ARG	D	63 63	81.278	91.510 89.512	-5.798 -6.944	1.00 1.00	47.92 47.92	D D
ATOM	3989	С	ARG	D	63	83.408	89.423	1.281	1.00	37.56	D.
ATOM	3990	0	ARG	D	63	82.691	89.941	2.140	1.00	37.56	D
ATOM ATOM	3991 3992	N CA	ARG ARG	D D	64 64	84.719 85.368	89.349	1.392	1.00	33.60	D
ATOM	3993	CB	ARG	D	64	85.493	89.786 88.551	2.598 3.508	1.00 1.00	33.60 37.75	D D
ATOM	3994	CG	ARG	Ď	64	85.167	88.749	4.971	1.00	37.75	Ď
ATOM	3995	CD	ARG	D	64	83.926	87.968	5.397	1.00	37.75	D
ATOM ATOM	3996 3997	NE CZ	ARG ARG	D D	64 64	82.798 81.547	88.345	4.571	1.00	37.75	D
ATOM	3998	NH1	ARG	D	64 64	81.219	87.936 87.109	4.739 5.722	1.00 1.00	37.75 37.75	D D
ATOM	3999	NH2	ARG	Ď	64	80.621	88.379	3.905	1.00	37.75	Ď
ATOM	4000	C	ARG	D	64	86.755	90.353	2.300	1.00	33.60	D
ATOM ATOM	4001 4002	O N	ARG GLN	D D	64	87.267	90.248	1.183	1.00	33.60	D
ATOM	4002	CA	GLN	D	65 65	87.338 88.696	90.986 91.486	3.308 3.222	1.00 1.00	37.58 37.58	D D
ATOM	4004	СВ	GLN	D	65	88.776	92.985	3.470	1.00	44.35	Ď
ATOM	4005	CG	GLN	D	65	88.206	93.845	2.369	1.00	44.35	D
ATOM ATOM	4006 4007	CD OE1	GLN GLN	D D	65 65	88.575 89.723	95.308 <sub>.</sub>	2.551	1.00	44.35	D
ATOM	4008	NE2	GLN	D	65	87.604	95.705 96.115	2.325 2.982	1.00 1.00	44.35 44.35	D D
ATOM	4009	C	GLN	D	65	89.295	90.733	4.405	1.00	37.58	Ď
ATOM	4010	0	GLN	D	65	88.663	90.620	5.449	1.00	37.58	D
ATOM ATOM	4011 4012	N CA	LEU LEU	D D	66 66	90.488 91.088	90.189 89.449	4.248	1.00	36.57	D
ATOM	4013	CB	LEU	D	66	91.546	88.087	5.330 4.819	1.00 1.00	36.57 36.18	D D
ATOM	4014	CG	LEU	D	66	91.676	86.992	5.871	1.00	36.18	D

ATOM	4015	CD1	LEU	D	66	90.363	86.847	6.657	1.00	36.18	D
ATOM	4016	CD2	LEU	D	66	92.040	85.684	5.168	1.00	36.18	D
ATOM	4017	C	LEU	D	66	92.245	90.269	5.869	1.00	36.57	D
ATOM	4018	0	LEU	D	66	93.322	90.330	5.275	1.00	36.57	D
ATOM	4019	N	TYR	D	67	92.002	90.904	7.008	1.00	33.90	D
ATOM	4020	CA	TYR	D	67	92.981	91.767	7.638	1.00	33.90	D
ATOM	4021	CB	TYR	D	67	92.248	92.923	8.327	1.00	38.66	D
ATOM	4022	CG	TYR	D	67	93.134	93.857	9.126	1.00	38.66	D
ATOM	4023	CD1	TYR	D	67	94.012	94.740	8.491	1.00	38.66	D
ATOM	4024	CE1	TYR	D	67	94.815	95.599	9.223	1.00	38.66	D
MOTA	4025	CD2	TYR	D	67	93.089	93.861	10.520	1.00	38.66	D
ATOM ATOM	4026 4027	CE2	TYR	D	67	93.890	94.717	11.262	1.00	38.66	D
ATOM	4027	CZ OH	TYR TYR	D D	67 67	94.751 95.551	95.584 96.428	10.605 11.343	1.00 1.00	38.66 38.66	D D
ATOM	4029	С	TYR	D	67	93.878	90.426	8.635	1.00	33.90	D
ATOM	4030	ŏ	TYR	Ď	67	93.406	90.487	9.621	1.00	33.90	D
ATOM	4031	N	CYS	Ď	68	95.179	91.059	8.370	1.00	34.51	D
ATOM	4032	CA	CYS	Ď	68	96.136	90.425	9.265	1.00	34.51	D
ATOM	4033	CB	CYS	Ď	68	97.427	90.090	8.510	1.00	38.62	Ď
ATOM	4034	SG	CYS	Ď	68	98.499	88.931	9.390	1.00	38.62	Ď
ATOM	4035	C	CYS	Ď	68	96.422	91.424	10.388	1.00	34.51	Ď
ATOM	4036	ŏ.	CYS	Ď	68	96.511	92.625	10.134	1.00	34.51	Ď
ATOM	4037	Ň	ARG	Ď	69	96.546	90.935	11.622	1.00	43.41	D.
ATOM	4038	CA	ARG	Ď	69	96.802	91.813	12.760	1.00	43.41	D
ATOM	4039	СВ	ARG	D	69	96.841	91.015	14.067	1.00	65.33	D
ATOM	4040	CG,	ARG	D	69	96.942	91.902	15.298	1.00	65.33	D
ATOM	4041	CD	ARG	D	69	96.692	91.136	16.583	1.00	65.33	D
ATOM	4042	NE	ARG	D	69	96.974	91.958	17.763	1.00	65.33	D
ATOM	4043	CZ	ARG	D	69	96.797	91.559	19.023	1.00	65.33	D
ATOM	4044	NH1	ARG	D	69	96.333	90.342	19.277	1.00	65.33	D
ATOM	4045	NH2	ARG	D	69	97.089	92.376	20.028	1.00	65.33	D
ATOM	4046	С	ARG	D	69	98.124	92.533	12.546	1.00	43.41	D
ATOM	4047	0	ARG	D	69	98.451	93.515	13.209	1.00	43.41	D
ATOM	4048	N	THR	D	70	98.872	92.035	11.582	1.00	50.64	D
ATOM	4049	CA	THR	. D	70	100.158	92.588	11.250	1.00	50.64	D
ATOM	4050	CB	THR	D	70	100.893	91.563	10.355	1.00	43.03	D
ATOM	4051	OG1	THR	D	70	102.225	91.376	10.840	1.00	43.03	D
ATOM	4052	CG2	THR	D	70	100.895	91.979	8.924	1.00	43.03	D
MOTA	4053	C O	THR THR	D	70	99.973	93.965	10.588	1.00	50.64	D
ATOM ATOM	4054 4055	N	GLY	D D	70 71	100.930 98.726	94.715 94.300	10.401	1.00	50.64	D
ATOM	4055	CA	GLY	D	71	98.429	94.500 95.581	10.261 9.648	1.00 1.00	38.67 38.67	D D
ATOM	4057	C	GLY	Ď	71	98.105	95.522	8.169	1.00	38.67	D
ATOM	4058	ŏ	GLY	Ď	71	97.850	96.552	7.550	1.00	38.67	D
ATOM	4059	N	PHE	Ď	72	98.094	94.328	7.588	1.00	35.55	D
ATOM	4060	CA	PHE	Ď	72	97.824	94.214	6.159	1.00	35.55	Ď
ATOM	4061	CB	PHE	Ď	72	99.078	93.733	5.406	1.00	38.85	D
ATOM	4062	CG	PHE	Ď	72	100.327	94.508	5.724	1.00	38.85	D
ATOM	4063	CD1	PHE	D	72	101.051	94.241	6.875	1.00	38.85	D
ATÓM	4064	CD2	PHE	Ď	- 72	100.786	95.507	4.861	1.00	38.85	D
ATOM	4065	CE1	PHE	D	72	102.221	94.957	7.176	1.00	38.85	D
ATOM	4066	CE2	PHE	D	72	101.957	96.233	5.148	1.00	38.85	D
ATOM	4067	CZ	PHE	D	72	102.674	95.955	6.307	1.00	38.85	D
ATOM	4068	С	PHE	D	72	96.680	93.292	5.763	1.00	35.55	D
ATOM	4069	0	PHE	D	72	96.394	92.294	6.430	1.00	35.55	D.
ATOM	4070	N	HIS	D	73	96.048	93.637	4.648	1.00	40.58	D.
ATOM	4071	CA	HIS	D	73	94.976	92.845	4.076	1.00	40.58	D

WO 02/24722

ATOM	4070	OD		_	70	00.000	00 700		4 00	40.44	_
ATOM	4072	СВ	HIS	D	73	93.993	93.733	3.317	1.00	48.44	D
ATOM	4073	CG	HIS	D	73	93.149	94.596	4.198	1.00	48.44	D
ATOM	4074	CD2	HIS	D	73	92.081	94.299	4.974	1.00	48.44	D
ATOM	4075	ND1	HIS	D	73	93.359	95.949	4.337	1.00	48.44	D
ATOM	4076	CE1	HIS	D	73	92.455	96.452	5.158	1.00	48.44	D
ATOM	4077	NE2	HIS	D	73	91.668	95.471	5.559	1.00	48.44	D
ATOM	4078	С	HIS	D	73	95.622	91.876	3.090	1.00	40.58	D
ATOM	4079	0	HIS	D	73	96.547	92.243	2.377	1.00	40.58	D
ATOM	4080	N	LEU	D	74	95.141	90.644	3.035	1.00	39.53	D
ATOM	4081	CA	LEU	Ď	74	95.714	89.684	2.112	1.00	39.53	Ď
ATOM	4082	СВ	LEU	Ď	74	95.354	88.267	2.538	1.00	38.15	Ď
ATOM	4083	CG	LEU	Ď	74	96.038	87.167				
ATOM	4084	CD1	LEU					1.732	1.00	38.15	D
ATOM				D	74	96.466	86.054	2.669	1.00	38.15	D
	4085	CD2	LEU	D	74	95.099	86.659	0.641	1.00	38.15	D
ATOM	4086	C	LEU	D	74	95.222	89.950	0.694	1.00	39.53	D
ATOM	4087	0	LEU	D	74	94.045	90.230	0.473	1.00	39.53	D
ATOM	4088	N	GLU	D	75	96.140	89.867	-0.268	1.00	44.34	D
ATOM	4089	CA	GLU	D	75	95.822	90.099	-1.667	1.00	44.34	D
ATOM	4090	CB	GLU	D	75	96.595	91.302	-2.189	1.00	46.41	D
ATOM	4091	CG	GLU	D	75	96.105	92.631	-1.694	1.00	46.41	D
ATOM	4092	CD	GLU	D	75	97.019	93.751	-2.106	1.00	46.41	D
ATOM	4093	OE1	GLU	D	75	98.156	93.785	-1.592	1.00	46.41	Ď
ATOM	4094	OE2	GLU	D	75	96.604	94.588	-2.937	1.00	46.41	D
ATOM	4095	С	GLU	D	75	96.187	88.914	-2.517	1.00	44.34	Ď
ATOM	4096	Ŏ	GLU	D	75	97.176	88.240	-2.263	1.00	44.34	Ď
ATOM	4097	Ň	ILE	Ď	76	95.394	88.665	-2.203 -3.546			
ATOM	4098	CA	ILE	Ď	76	95.678			1.00	35.83	D
ATOM	4099	CB	ILE				87.565	-4.461	1.00	35.83	D
ATOM				D	76	94.551	86.524	-4.443	1.00	39.96	D
	4100	CG2	ILE	D	76	94.878	85.401	-5.409	1.00	39.96	D
ATOM	4101	CG1	ILE	D	76	94.361	86.005	-3.011	1.00	39.96	D
ATOM	4102	CD1	ILE	D	76	93.289	84.948	-2.848	1.00	39.96	D
ATOM	4103	C	ILE	D	76	95.815	88.152	-5.864	1.00	35.83	D
ATOM	4104	0	ILE	D	76	94.817	88.476	-6.509	1.00	35.83	D
ATOM	4105	N	PHÉ	D	77	97.053	88.304	-6.329	1.00	43.90	D
ATOM	4106	CA	PHE	D	77	97.292	88.877	-7.649	1.00	43.90	D
ATOM	4107	CB	PHE	D	77	98.687	89.486	-7.714	1.00	46.13	D
ATOM	4108	CG	PHE	D	77	98.816	90.749	-6.924	1.00	46.13	D
ATOM	4109	CD1	PHE	D	77	99.148	90.714	-5.574	1.00	46.13	D
ATOM	4110	CD2	PHE	D	77	98.536	91.985	-7.514	1.00	46.13	D
ATOM	4111	CE1	PHE	D	77	99.198	91.891	-4.824	1.00	46.13	D
ATOM	4112	CE2	PHE	D	77	98.585	93.172	-6.765	1.00	46.13	D
ATOM	4113	CZ	PHE	D	77	98.915	93.123	-5.422	1.00	46.13	D
ATOM	4114	С	PHE	D	77	97.080	87.922	-8.814	1.00	43.90	Ď
ATOM	4115	Ō	PHE	D	77	97.268	86.712	-8.688	1.00	43.90	Ď
ATOM	4116	N	PRO	D	78	96.661	88.465	-9.969	1.00	52.17	
ATOM	4117	CD	PRO	Ď	78	96.356	89.893	-10.193	1.00		D
ATOM	4118	CA	PRO	Ď	78	96.412	87.678	-11.182		38.51	D
ATOM	4119	CB	PRO	D	78	96.156	88.742		1.00	52.17	D
ATOM	4120	CG	PRO	D			89.850	-12.242	1.00	38.51	D
ATOM	4121	C	PRO		78	95.522		-11.456	1.00	38.51	D
				D	78 70	97.570	86.763	-11.555	1.00	52.17	D
ATOM	4122	0	PRO	D	78 70	97.351	85.695	-12.122	1.00	52.17	D
ATOM	4123	N	ASN	D	79	98.798	87.169	-11.240	1.00	51.23	D
ATOM	4124	CA	ASN	D	79	99.946	86.337	-11.569	1.00	51.23	D
ATOM	4125	CB	ASN	D	79	101.202	87.189	-11.839	1.00	61.00	D
ATOM	4126	CG	ASN	D	79	101.710	87.950	-10.619	1.00	61.00	D
ATOM	4127	OD1	ASN	D	79	101.277	87.744	-9.486	1.00	61.00	D
ATOM	4128	ND2	ASN	D	79	102.679	88.824	-10.890	1.00	61.00	D

#### WO 02/24722

**ATOM** 

4185

CD

LYS

D

#### FIGURE 2 Continued

**ATOM** 4129 **ASN** 100.245 -10.54051.23 D C D 79 85.245 1.00 **ATOM** 4130 51.23 0 ASN D 79 101.346 84.690 -10.517 1.00 D **ATOM** 99.253 38.19 4131 Ν **GLY** D 80 84.930 -9.706 D 1.00 **ATOM** 4132 38.19 CA **GLY** D 80 99.413 D 83.884 -8.702 1.00 **ATOM** 4133 **GLY** D 80 100.249 84.266 -7.495 38.19 D С 1.00 **ATOM** 4134 0 **GLY** D 80 100.559 83.436 -6.654 38.19 D 1.00 4135 **ATOM** 47.14 N THR D 81 100.615 85.534 -7.411 1.00 D 1.00 ATOM 4136 47.14 CA THR D 81 101.423 86.022 -6.305D **ATOM** 4137 102.348 57.15 CB THR D 81 87.173 -6.8081.00 D 57.15 57.15 47.14 47.14 **ATOM** 4138 OG1 THR D 81 103.588 86.604 -7.251 1.00 D **ATOM** 4139 CG2 THR D 81 102.606 88.211 -5.733 1.00 D **ATOM** 4140 THR 100.543 -5.139 С D 81 86.485 1.00 D **ATOM** 4141 0 THR D 99.392 86.881 -5.342 81 1.00 D 44.74 **ATOM** 4142 ILE 101.085 -3.921 Ν D 82 86.406 1.00 D 44.74 **ATOM** 4143 100.369 CA ILE D 82 86.832 -2.7251.00 D **ATOM** 100.098 4144 CB ILE 82 -1.745 33.10 D 85.657 1.00 D **ATOM** 4145 CG<sub>2</sub> ILE D 82 99.292 86.165 -0.54333.10 1.00 D **MOTA** 4146 CG<sub>1</sub> 99.319 33.10 ILE D 82 84.537 -2.4351.00 D **ATOM** 4147 CD1 97.988 84.971 -2.969 33.10 ILE D 82 1.00 D **ATOM** 4148 ILE D 101.174 -1.952 44.74 С 82 87.870 1.00 D **ATOM** 4149 0 ILE D 82 102.397 -1.844 44.74 87.768 1.00 D **ATOM** 53.73 4150 Ν **GLN** D 83 100.483 88.871 -1.416 1.00 D **MOTA** 4151 CA **GLN** D 83 101.126 89.898 -0.608 1.00 53.73 D D **ATOM** 4152 CB GLN 83 101.964 90.843 -1.4691.00 70.07 D **ATOM GLN** D 70.07 4153 CG 83 101.219 91.534 -2.574D 1.00 **ATOM** D 4154 CD **GLN** 83 102.132 92.400 -3.422 1.00 70.07 D **ATOM** 4155 D 102.690 -2.944 70.07 OE1 **GLN** 83 1.00 D 93.382 **ATOM** D 4156 NE2 GLN 83 102.294 -4.687 70.07 D 92.031 1.00 **ATOM** GLN D 83 100.074 90.675 0.162 1.00 53.73 D 4157 С **ATOM** D 98.876 1.00 53.73 4158 0 GLN 83 90.511 -0.074 D 56.43 **ATOM** 4159 Ν **GLY** D 84 100.520 91.506 1.096 1.00 D **ATOM** 4160 CA **GLY** D 84 99.587 92.273 1.889 1.00 56.43 D **ATOM** 99.651 1.00 4161 С **GLY** D 84 93.750 1.591 56.43 D **ATOM** 100.669 4162 0 **GLY** D 84 94.251 1.112 1.00 56.43 D **MOTA** THR 4163 D 85 98.559 94.450 1.878 50.58 N 1.00 D MOTA 85 4164 THR 98.487 CA D 95.882 1.650 1.00 50.58 D MOTA 4165 CB THR D 85 97.791 96.202 0.330 42.66 1.00 D **ATOM** 4166 OG1 THR 97.776 97.619 0.142 42.66 D 85 1.00 D **MOTA** 4167 CG2 THR D 85 96.365 95.688 0.339 1.00 42.66 D MOTA THR 97.728 2.768 4168 C D 85 96.577 1.00 50.58 D **MOTA** 4169 THR 96.665 3.192 50.58 0 D 85 96.120 1.00 D MOTA 4170 Ν **ARG** D 86 98.282 97.687 3.243 1.00 43.79 D **MOTA** 4171 CA **ARG** 86 97.656 98.460 4.306 1.00 43.79 D D MOTA 4172 CB **ARG** D 86 98.632 99.519 4.828 1.00 62.75 D 86 99.804 98.948 5.612 **ATOM** 4173 CG **ARG** D 1.00 62.75 D 100.040 **ATOM** 4174 CD **ARG** D 86 100.765 6.061 1.00 62.75 D **ATOM** 4175 NE **ARG** D 86 101.803 99.554 6.974 1.00 62.75 D 101.578 4176 **ARG** D 86 99.111 8.213 **ATOM** CZ 1.00 62.75 D **ATOM** 4177 NH<sub>1</sub> **ARG** D 86 100.340 99.086 8.701 62.75 1.00 D **ATOM** 4178 ARG 102.593 98.703 NH2 D 86 8.972 1.00 62.75 D **ATOM** 4179 **ARG** D 86 96.376 99.118 3.792 43.79 C 1.00 D ARG LYS **ATOM** 4180 0 D 86 95.472 99.417 4.563 1.00 43.79 D **ATOM** 4181 Ν D 87 96.297 99.321 2.481 1.00 53.52 D **ATOM** LYS D 95.130 99.953 1.874 53.52 4182 CA 87 1.00 D 0.366 **ATOM** 4183 CB LYS D 87 95.336 100.094 1.00 77.32 D **ATOM** LYS 0.027 100.978 77.32 4184 CG D 87 96.521 1.00 D

100.907

-1.439

1.00

77.32

D

96.897

87

# WO 02/24722

ATOM	4186	CE	LYS	D	87	98.142	101.741	-1.712	1.00	77.32	D
ATOM	4187	NZ	LYS	D	87	98.610	101.608	-3.123	1.00	77.32	D
ATOM	4188	C	LYS	Ď	87	93.846	99.192	2.153	1.00	53.52	Ď
ATOM	4189	ŏ	LYS	Ď	87	93.847	97.970	2.307	1.00	53.52	D
ATOM	4190	Ň	ASP	Ď	88	92.748	99.929	2.232	1.00		
ATOM	4191		ASP			_				46.76	D
		CA		D	88	91.443	99.338	2.482	1.00	46.76	D
ATOM	4192	СВ	ASP	D	88	90.643	100.243	3.425	1.00	47.07	D
ATOM	4193	CG	ASP	D	88	89.224	99.757	3.653	1.00	47.07	D
ATOM	4194	OD1	ASP	D	88	89.030	98.551	3.909	1.00	47.07	D
ATOM	4195	OD2	ASP	D	88	88.296	100.592	3.591	1.00	47.07	D
ATOM	4196	С	ASP	D	88	90.746	99.197	1.138	1.00	46.76	D
ATOM	4197	0	ASP	D	88	90.877	100.058	0.270	1.00	46.76	D
ATOM	4198	N	HIS	D	89	90.022	98.102	0.956	1.00	43.41	D
ATOM	4199	CA	HIS	D	89	89.318	97.870	-0.299	1.00	43.41	Ď
ATOM	4200	CB	HIS	Ď	89	88.199	98.897	-0.482	1.00	46.70	D
ATOM	4201	CG	HIS	Ď	89	86.993					
ATOM		CD2					98.617	0.353	1.00	46.70	D
–	4202		HIS	D	89	85.845	97.958	0.064	1.00	46.70	D
ATOM	4203	ND1	HIS	D	89	86.907	98.978	1.679	1.00	46.70	D
ATOM	4204	CE1	HIS	D	89	85.757	98.552	2.172	1.00	46.70	D
ATOM	4205	NE2	ĤIS	D	89	85.095	97.930	1.213	1.00	46.70	D
ATOM	4206	С	HIS	D	89	90.212	97.877	-1.540	1.00	43.41	D
ATOM	4207	0	HIS	D	89	89.816	98.393	-2.591	1.00	43.41	D
ATOM	4208	N	SER	D	90	91.408	97.304	-1.425	1.00	47.53	D
ATOM	4209	CA	SER	D	90	92.313	97.247	-2.566	1.00	47.53	Ď
ATOM	4210	СВ	SER	Ď	90	93.697	96.786	-2.137	1.00	54.51	Ď
ATOM	4211	OG	SER	Ď	90	93.686	95.404	-1.860	1.00		
ATOM	4212	c	SER	Ď	90					54.51	D
ATOM	4213	ŏ				91.737	96.265	-3.583	1.00	47.53	D
			SER	D	90	91.098	95.282	-3.221	1.00	47.53	D
ATOM	4214	N	ARG	D	91	91.971	96.544	-4.857	1.00	47.05	D
ATOM	4215	CA	ARG	D	91	91.469	95.722	<b>-5</b> .950	1.00	47.05	D
ATOM	4216	CB	ARG	D	91	92.181	96.135	-7.244	1.00	79.19	D
ATOM	4217	CG	ARG	D	91	91.706	95.425	-8.499	1.00	79.19	D
ATOM	4218	CD	ARG	D	91	92.532	95.849	-9.707	1.00	79.19	D
ATOM	4219	NE	ARG	D	91	92.236	95.042	-10.890	1.00	79.19	D
ATOM	4220	CZ	ARG	D	91	92.905	95.123	-12.038	1.00	79.19	D
ATOM	4221	NH1	ARG	D	91	93.912	95.978	-12.162	1.00	79.19	D
ATOM	4222	NH2	ARG	D	91	92.577	94.340	-13.057	1.00	79.19	Ď
ATOM	4223	C	ARG	D	91	91.601	94.209	<b>-</b> 5.735	1.00	47.05	D
ATOM	4224	ŏ	ARG	Ď	91	90.643	93.459	-5.920	1.00	47.05	D
ATOM	4225	Ň	PHE	Ď	92	92.785	93.763				
ATOM	4226	CA	PHE	Ď	92 92	93.024		-5.339	1.00	49.96	D
ATOM	4227						92.342	<b>-</b> 5.154	1.00	49.96	D
		CB	PHE	D	92	94.396	91.994	-5.730	1.00	47.04	D
ATOM	4228	CG	PHE	D	92	94.533	92.362	-7.176	1.00	47.04	D
ATOM	4229	CD1	PHE	D	92	93.747	91.732	-8.143	1.00	47.04	D
ATOM	4230	CD2	PHE	D	92	95.392	93.387	-7.573	1.00	47.04	D
ATOM	4231	CE1	PHE	D	<b>92</b> .	93.808	92.119	-9.489	1.00	47.04	D
ATOM	4232	CE2	PHE	D	92	95.460	93.781	-8.914	1.00	47.04	D
ATOM	4233	CZ	PHE	D	92	94.662	93.141	-9.873	1.00		D
ATOM	4234	С	PHE	.D	92	92.897	91.881	-3.713	1.00		D
ATOM	4235	Ō	PHE	D	92	93.260	90.748	-3.378	1.00		Ď
ATOM	4236	N	GLY	Ď	93	92.368	92.771	-2.875	1.00		
ATOM	4237	CA	GLY	Ď	93	92.157	92.466				D
ATOM	4238	C	GLY	Ď	93		92.466	1.473	1.00	44.36	D
ATOM						90.716		-1.219	1.00	44.36	D
	4239	0	GLY	D	93	90.361	91.680	-0.101	1.00		D
ATOM	4240	N	ILE	D	94	89.882	92.099	-2.255	1.00		D
ATOM	4241	CA	ILE	D	94	88.482	91.697	-2.141	1.00		D
ATOM	4242	CB	ILE	D	94	87.600	92.417	<b>-</b> 3.177	1.00	39.61	D

ATOM	4243	CG2	ILE	D	94	86.143	92.016	-2.979	1.00	39.61 D
ATOM	4244	CG1	ILE						1.00	
				D	94	87.779	93.931	-3.058		39.61 D
ATOM	4245	CD1	ILE	D	94	87.448	94.491	-1.682	1.00	39.61 D
ATOM	4246	С	ILE	D	94	88.412	90.193	-2.406	1.00	47.02 D
ATOM	4247	0	ILE	D	94	88.647	89.742	-3.529	1.00	47.02 D
ATOM	4248	N	LEU	Ď	95	88.073	89.423	-1.375	1.00	44.82 D
ATOM	4249	CA	LEU	D	95	88.019	87.971	-1.488	1.00	44.82 D
ATOM	4250	CB	LEU	D	95	88.994	87.369	-0.481	1.00	31.17 D
ATOM	4251	CG	LEU	D	95	90.243	88.226	-0.213	1.00	31.17 D
ATOM	4252	CD1	LEU	D	95	90.960	87.729	1.029	1.00	31.17 D
ATOM	4253	CD2	LEU							
				D	95	91.181	88.198	-1.424	1.00	31.17 D
ATOM	4254	С	LEU	D	95	86.629	87.414	-1.225	1.00	44.82 D
ATOM	4255	0	LEU	D	95	85.858	88.003	-0.489	1.00	44.82 D
ATOM	4256	N	GLU	D	96	86.316	86.272	-1.826	1.00	37.43 D
ATOM	4257	CA	GLU	D	96	85.030	85.614	-1.617	1.00	37.43 D
ATOM	4258	CB	GLU	Ď	96	84.392	85.213	-2.937	1.00	
										47.59 D
ATOM	4259	CG	GLU	D	96	83.007	84.620	<b>-</b> 2.777	1.00	47.59 D
ATOM	4260	CD	GLU	D	96	82.672	83.615	-3.862	1.00	47.59 D
ATOM	4261	OE1	GLU	D	96	83.309	83.676	-4.930	1.00	47.59 D
ATOM	4262	OE2	GLU	D	96	81.777	82.767	-3.660	1.00	47.59 D
ATOM	4263	č	GLU	Ď	96	85.287	84.351	-0.811	1.00	37.43 D
ATOM	4264	0	GLU	D	96	86.035	83.470	-1.244	1.00	37.43 D
ATOM	4265	N	PHE	D	97	84.678	84.260	0,367	1.00	50.19 D
ATOM	4266	CA	PHE	D	97	84.848	83.083	1.202	1.00	50.19 D
ATOM	4267	CB	PHE	D	97	84.579	83.412	2.654	1.00	33.14 D
ATOM	4268	CG	PHE	D	97	85.804	83.787	3.422	1.00	33.14 D
ATOM	4269	CD1	PHE	Ď	97	86.515	84.937	3.108	1.00	33.14 D
ATOM	4270	CD2	PHE	Ď	97	86.243	82.994	4.476	1.00	33.14 D
ATOM	4271	CE1	PHE	D	97	87.653	85.297	3.833	1.00	33.14 D
ATOM	4272	CE2	PHE	D	97	87.383	83.340	5.212	1.00	33.14 D
ATOM	4273	CZ	PHE	D	97	88.088	84.498	4.890	1.00	33.14 D
ATOM	4274	С	PHE	D	97	83.935	81.954	0.771	1.00	50.19 D
ATOM	4275	0	PHE	D	97	82.754	82.158	0.478	1.00	50.19 D
ATOM	4276	N	ILE	D	98	84.499	80.756	0.731	1.00	34.44 D
ATOM	4277	CA	ILE	Ď	98	83.757	79.574	0.341	1.00	34.44 D
ATOM	4278	CB	ILE	D	98	84.413	78.903	-0.874	1.00	44.32 D
ATOM	4279	CG2	ILE	D	98	83.565	77.727	-1.340	1.00	44.32 D
ATOM	4280	CG1	ILE	D	98	84.580	79.937	-1.991	1.00	44.32 D
ATOM	4281	CD1	ILE	D	98	85.394	79.465	-3.168	1.00	44.32 D
ATOM	4282	С	ILE	D	98	83.742	78.606	1.516	1.00	34.44 D
ATOM	4283	0	ILE	D	98	84.788	78.151	1.983	1.00	34.44 D
ATOM	4284	Ň	SER	Ď	99	82.544	78.300	1.996	1.00	40.20 D
	4285	CA								
ATOM			SER	D	99	82.393	77.400	3.122	1.00	40.20 D
ATOM	4286	CB	SER	D	99	81.057	77.661	3.814	1.00	50.16 D
ATOM	4287	OG	SER	D	99	81.026	77.009	5.070	1.00	50.16 D
ATOM	4288	С	SER	D	99	82.466	75.963	2.635	1.00	40.20 D
ATOM	4289	0	SER	D	99	81.514	75.445	2.060	1.00	40.20 D
ATOM	4290	Ň	ILE	D	100	83.601	75.319	2.863	1.00	40.10 D
ATOM	4291	CA	ILE		100	83.787	73.942	2.431	1.00	
				D						40.10 D
ATOM	4292	CB	ILE	D	100	85.296	73.558	2.426	1.00	34.87 D
ATOM	4293	CG2	ILE	D	100	85.471	72.097	1.992	1.00	34.87 D
ATOM	4294	CG1	ILE	D	100	86.071	74.482	1.464	1.00	34.87 D
ATOM	4295	CD1	ILE	D	100	85.612	74.400	0.003	1.00	34.87 D
ATOM	4296	С	ILE	D	100	83.020	73.009	3.356	1.00	40.10 D
ATOM	4297	ŏ	ILE	Ď	100	82.278	72.145	2.905	1.00	40.10 D
ATOM	4298	N	ALA	Ď	101	83.197	73.214	4.655	1.00	
ATOM	4299	CA	ALA	D	101	82.546	72.427	5.690	1.00	41.36 D

#### WO 02/24722

ATOM	4300	СВ	ALA	D	101	83.238	71.082	5.826	1.00	24.32	D
ATOM	4301	C									
			ALA	D	101	82.719	73.248	6.965	1.00	41.36	D
ATOM	4302	0	ALA	D	101	83.469	74.228	6.964	1.00	41.36	D
ATOM	4303	N	VAL	D	102	82.042	72.882	8.051	1.00	37.27	D
ATOM	4304	CA	VAL	D	102	82.219	73.664	9.269	1.00	37.27	D
ATOM	4305	CB	VAL	Ď	102	81.302	73.180	10.454	1.00	43.49	Ď
ATOM	4306	CG1	VAL	Ď	102	79.879	72.964	9.956	1.00		
										43.49	D
ATOM	4307	CG2	VAL	D	102	81.841	71.919	11.082	1.00	43.49	D
ATOM	4308	C	VAL	D	102	83.688	73.552	9.650	1.00	37.27	D
ATOM	4309	0	VAL	D	102	84.252	72.454	9.717	1.00	37.27	D
ATOM	4310	N	GLY	D	- 103	84.315	74.700	9.852	1.00	36.63	D
ATOM	4311	CA	GLY	D	103	85.717	74.726	10.210	1.00	36.63	D
ATOM	4312	С	GLY	D	103	86.636	74.795	9.010	1.00	36.63	Ď
ATOM	4313	Ō	GLY	Ď	103	87.833	75.019	9.168	1.00	36.63	D
ATOM	4314	Ň	LEU	Ď	104	86.093	74.621	7.810	1.00		
ATOM	4315	CA	LEU							31.40	D
				D	104	86.922	74.639	6.612	1.00	31.40	D
ATOM	4316	CB	LEU	D	104	86.944	73.255	5.963	1.00	33.42	D
ATOM	4317	CG	LEU	D	104	87.448	72.103	6.822	1.00	33.42	D
ATOM	4318	CD1	LEU	D	104	87.385	70.810	6.018	1.00	33.42	D
ATOM	4319	CD2	LEU	D	104	88.870	72.403	7.280	1.00	33.42	D
ATOM	4320	С	LEU	D	104	86.491	75.646	5.567	1.00	31.40	D
ATOM	4321	0	LEU	D	104	85.316	75.707	5.194	1.00	31.40	Ď
ATOM	4322	Ň	VAL	Ď	105	87.447	76.419	5.063	1.00	32.85	Ď
ATOM	4323	CA	VAL	Ď	105	87.115	77.408	4.051			
ATOM	4324	CB							1.00	32.85	D
			VAL	D	105	87.151	78.854	4.623	1.00	28.26	D
ATOM	4325	CG1	VAL	D	105	86.236	78.972	5.823	1.00	28.26	D
ATOM	4326	CG2	VAL	D	105	88.588	79.214	5.005	1.00	28.26	D
ATOM	4327	С	VAL	D	105	88.075	77.391	2.875	1.00	32.85	D
ATOM	4328	0	VAL	D	105	89.135	76.761	2.908	1.00	32.85	D
ATOM	4329	N	SER	D	106	87.659	78.092	1.833	1.00	35.69	D
ATOM	4330	CA	SER	D	106	88.453	78.300	0.644	1.00	35.69	D
ATOM	4331	CB	SER	D	106	87.910	77.514	-0.549	1.00	34.35	Ď
ATOM	4332	OG	SER	D	106	88.341	76.166	-0.476	1.00	34.35	Ď
ATOM	4333	Č	SER	Ď	106	88.281	79.801	0.440	1.00	35.69	D
ATOM	4334	ŏ	SER	Ď	106	87.247	80.368				
ATOM	4335	N	ILE					0.799	1.00	35.69	D
				D	107	89.298	80.445	-0.109	1.00	38.83	D
ATOM	4336	CA	ILE	D	107	89.255	81.876	-0.321	1.00	38.83	D
ATOM	4337	CB	ILE	D	107	90.227	82.575	0.644	1.00	32.55	D
ATOM	4338	CG2	ILE	D	107	90.178	84.078	0.434	1.00	32.55	D
ATOM	4339	CG1	ILE	D	107	89.869	82.200	2.087	1.00	32.55	D
ATOM	4340	CD1	ILE	D	107	90.972	82.435	3.072	1.00	32.55	D
ATOM	4341	С	ILE	D	107	89.641	82.205	-1.750	1.00	38.83	D
ATOM	4342	0	ILE	D	107	90.769	81.951	-2.167	1.00	38.83	D
ATOM	4343	N	ARG	Ď	108	88.699	82.761	-2.503	1.00	34.65	D
ATOM	4344	CA	ARG	Ď	108	88.964	83.125	-3.882	1.00	34.65	Ď
ATOM	4345	CB.	ARG	Ď	108	87.893	82.552	-4.808			
ATOM	4346								1.00	56.81	D
		CG	ARG	D	108	88.035	83.065	-6.222	1.00	56.81	D
ATOM	4347	CD	ARG	D	108	87.762	82.009	-7.256	1.00	56.81	D
ATOM	4348	NE	ARG	D	108	86.366	81.976	-7.662	1.00	56.81	D
ATOM	4349	CZ	ARG	D	108	85.963	81.744	-8.909	1.00	56.81	D
ATOM	4350	NH1	ARG	D	108	86.856	81.529	-9.870	1.00	56.81	D
ATOM	4351	NH2	ARG	D	. 108	84.667	81.728	-9.197	1.00	56.81	D
ATOM	4352	С	ARG	Ď	108	89.041	84.636	-4.090	1.00	34.65	D
ATOM	4353	ō	ARG	Ď	108	88.171	85.386	-3.631	1.00	34.65	D
ATOM	4354	Ň	GLY	Ď	109	90.088	85.081	-4.786	1.00	42.88	Ď
ATOM	4355	CA	GLY	Ď	109	90.225	86.499	-5.062	1.00	42.88	
ATOM	4356	C	GLY	Ď	109	89.118					D
VI OIM	4000	U	GLI	U	108	05.110	86.866	-6.033	1.00	42.88	D

#### WO 02/24722

#### FIGURE 2 Continued

#### PCT/IL01/00871

ATOM ATOM ATOM ATOM ATOM ATOM ATOM ATOM	4357 4358 4359 4360 4361 4362 4363 4364 4365 4366 4367 4368	O N CA CB CG1 CG2 C O N CA CB CG	GLY VAL VAL VAL VAL VAL VAL ASP ASP ASP	000000000000	109 110 110 110 110 110 110 111 111 111	88.973 88.319 87.232 86.339 85.258 85.719 87.719 87.185 88.732 89.242 90.166 90.454	86.238 87.868 88.263 89.308 89.771 88.707 88.806 88.454 89.661 90.222 91.403 92.234	-7.082 -5.692 -6.567 -5.891 -6.852 -4.640 -7.906 -8.955 -7.880 -9.118 -8.826 -10.061	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	48.85 40.18 40.18 40.18 48.85 48.85 48.31 48.31 76.83	
ATOM ATOM ATOM ATOM ATOM ATOM ATOM ATOM	4369 4370 4371 4372 4373 4374 4375 4376	OD1 OD2 C O N CA CB	ASP ASP ASP SER SER SER SER	000000	111 111 111 111 112 112 112 112	90.994 90.139 89.996 89.596 91.079 91.897 93.093 92.671	91.678 93.441 89.158 88.798 88.646 87.631 87.279 86.465	-11.036 -10.060 -9.908 -11.009 -9.334 -9.990 -9.124 -8.050	1.00 1.00 1.00 1.00 1.00 1.00 1.00	76.83 48.31 48.31 51.84 51.84 44.88	
ATOM ATOM ATOM ATOM ATOM ATOM ATOM ATOM	4377. 4378 4379 4380 4381 4382 4383 4384	C O N CA C O N CA	SER SER GLY GLY GLY LEU LEU	D D D D D D	112 112 113 113 113 113 114 114	91.153 91.441 90.212 89.465 90.252 89.817 91.409 92.243	86.347 85.689 85.977 84.750 83.541 82.403 83.779 82.683	-10.293 -11.282 -9.434 -9.648 -9.163 -9.324 -8.555 -8.079	1.00 1.00 1.00 1.00 1.00 1.00 1.00	51.84 51.84 39.75 39.75 39.75 39.75 43.32	
ATOM ATOM ATOM ATOM ATOM ATOM ATOM ATOM	4385 4386 4387 4388 4389 4390 4391 4392	CB CG CD1 CD2 C O N	LEU LEU LEU LEU LEU TYR TYR		114 114 114 114 114 114 115	93.732 94.210 95.642 94.089 91.993 91.622 92.216 92.033	83.028 83.444 83.932 82.290 82.319 83.166 81.052 80.572	-8.265 -9.666 -9.567 -10.651 -6.618 -5.800 -6.294 -4.937	1.00 1.00 1.00 1.00 1.00 1.00 1.00	37.81 37.81 37.81 37.81 43.32 43.32 38.40	
ATOM ATOM ATOM ATOM ATOM ATOM ATOM ATOM	4393 4394 4395 4396 4397 4398 4399 4400	CB CG CD1 CE1 CD2 CE2 CZ OH	TYR TYR TYR TYR TYR TYR TYR TYR TYR	0000000	115 115 115 115 115 115 115 115	91.502 90.193 90.157 88.949 88.987 87.774 87.759 86.555	79.139 78.971 78.815 78.657 78.969 78.812 78.655 78.487	-4.939 -5.669 -7.049 -7.717 -4.975 -5.630 -6.997 -7.644	1.00 1.00 1.00 1.00 1.00 1.00 1.00	44.55 44.55 44.55 44.55 44.55 44.55 44.55	
ATOM ATOM ATOM ATOM ATOM ATOM ATOM ATOM	4401 4402 4403 4404 4405 4406 4407 4408	C O N CA CB CG CD1	TYR TYR LEU LEU LEU LEU LEU LEU	00000000	115 115 116 116 116 116 116	93.339 94.415 93.231 94.385 94.019 95.118 96.258 94.549	80.615 80.400 80.915 80.955 81.604 81.572 82.500 81.999	-4.156 -4.701 -2.873 -2.013 -0.682 0.375 -0.040 1.717	1.00 1.00 1.00 1.00 1.00 1.00 1.00	38.40 38.40 33.54 33.54 29.09 29.09	
ATOM ATOM ATOM ATOM ATOM	4409 4410 4411 4412 4413	C O N CA C	LEU LEU GLY GLY GLY	0 0 0 0	116 116 117 117 117	94.787 93.942 96.077 96.546 97.846	79.508 78.654 79.226 77.875 77.913	-1.778 -1.496 -1.898 -1.675 -0.915	1.00 1.00 1.00 1.00 1.00	33.54 33.54 37.70 37.70	00000

#### WO 02/24722

АТОМ	4414	0	GLY	D	117	98.467	78.967	-0.780	1.00	37.70 E	
ATOM ATOM	4415 4416	N CA	MET	D	118	98.244	76.767	-0.387	1.00	42.09 E	
ATOM	4417	CB	MET	D	118 118	99.503 99.277	76.660 76.692	0.327 1.832	1.00 1.00	42.09 E 42.40 E	
ATOM	4418	CG	MET	Ď	118	100.561	76.793	2.604	1.00	42.40 E	
ATOM	4419	SD	MET	D	118	100.350	76.460	4.354	1.00	42.40 E	
ATOM	4420	CE	MET	D	118	99.969	78.117	4.973	1.00	42.40 E	
ATOM	4421	C	MET	D	118	100.127	75.328	-0.086	1.00	42.09 E	
ATOM ATOM	4422 4423	O N	MET ASN	D D	118	99.503	74.272	0.056	1.00	42.09 E 53.96 E	
ATOM	4424	CA	ASN	Ď	119 119	101.347 102.014	75.376 74.153	-0.618 -1.051	1.00 1.00	53.96 E	
ATOM	4425	CB	ASN	Ď	119	103.024	74.442	-2.163	1.00	41.18 E	
ATOM	4426	CG	ASN	D	119	104.117	75.402	-1.737	1.00	41.18 E	
ATOM	4427	OD1	ASN	D	119	104.489	75.470	-0.560	1.00	41.18 E	
MOTA	4428	ND2	ASN	D	119	104.655	76.141	-2.702	1.00	41.18 E	
ATOM ATOM	4429 4430	C O	ASN ASN	D D	119 119	102.704 102.711	73.455 73.963	0.106 1.226	1.00 1.00	53.96 E	
ATOM	4431	Ň	GLU	D.	120	103.286	73.903	-0.178	1.00	63.37 E	
ATOM	4432	CA	GLU	Ď	120	103.965	71.488	0.835	1.00	63.37 E	
ATOM	4433	CB	GLU	D	120	104.493	70.192	0.214	1.00	82.96 D	)
ATOM	4434	CG	GLU	D	120	104.737	69.097	1.240	1.00	82.96 E	
ATOM ATOM	4435 4436	CD OE1	GLU GLU	D D	120 120	104.925	67.722 67.395	0.621 -0.354	1.00	82.96 E	
ATOM	4437	OE2	GLU	Ď	120	104.210 105.775	66.959	-0.35 <del>4</del> 1.128	1.00 1.00	82.96 E	
ATOM	4438	C	GLU	Ď	120	105.094	72.230	1.541	1.00	63.37 E	
ATOM	4439	0	GLU	D	120	105.503	71.844	2.638	1.00	63.37 D	
ATOM	4440	N	LYS	D	121	105.602	73.289	0.915	1.00	52.24 D	
ATOM ATOM	4441 4442	CA CB	LYS LYS	D D	121 121	106.664	74.080	1.523	1.00	52.24 D	
ATOM	4443	CG	LYS	Ď	121	107.547 108.528	74.744 73.821	0.466 -0.230	1.00 1.00	65.90 D	
ATOM	4444	CD	LYS	Ď	121	109.721	74.625	-0.735	1.00	65.90 E	
ATOM	4445	CE	LYS	D	121	110.632	73.813	-1.651	1.00	65.90 D	
MOTA	4446	NZ	LYS	D	121	109.999	73.498	-2.977	1.00	65.90 D	
ATOM ATOM	4447 4448	CO	LYS LYS	D D	121 121	106.029 106.727	75.161 75.984	2.378	1.00	52.24 D	
ATOM	4449	N	GLY	Ď	121	106.727	75.964 75.161	2.981 2.415	1.00 1.00	52.24 D 42.67 D	
ATOM	4450	CA	GLY	Ď	122	103.974	76.145	3.197	1.00	42.67 D	
ATOM	4451	С	GLY	D	122	103.935	77.517	2.558	1.00	42.67 D	
MOTA	4452	0	GLY	D	122	103.812	78.514	3.252	1.00	42.67 D	
ATOM ATOM	4453 4454	N CA	GLU GLU	D D	123 123	104.024	77.572	1.233	1.00	47.74 D	
ATOM	4455	CB	GLU	Ď	123	104.003 105.048	78.851 78.858	0.521 -0.609	1.00 1.00	47.74 D	
ATOM	4456	ĊĠ	GLU	Ď	123	106.492	78.709	-0.135	1.00	70.94 D	
MOTA	4457	CD	GLU	D	123	107.503	78.706	-1.280	1.00	70.94 D	)
ATOM	4458	OE1	GLU	D	123	107.343	77.896	-2.227	1.00	70.94 D	
ATOM ATOM	4459 4460	OE2	GLU	D	123	108.460	79.511	-1.222	1.00	70.94 D	
ATOM	4461	CO	GLU GLU	D D	123 123	102.626 101.985	79.161 78.310	-0.051 -0.674	1.00 1.00	47.74 D 47.74 D	
ATOM	4462	Ň	LEU	Ď	124	102.188	80.395	0.164	1.00	42.34 D	
ATOM	4463	CA	LEU	D	124	100.886	80.847	-0.309	1.00	42.34 D	
MOTA	4464	CB	LEU	D	124	100.442	82.088	0.471	1.00	32.52 D	
MOTA	4465 4466	CG CD4	LEU	D	124	100.357	81.867	1.986	1.00	32.52 D	
ATOM ATOM	4466 4467	CD1 CD2	LEU LEU	D D	124 124	100.065 99.291	83.181 80.831	2.704 2.263	1.00 1.00	32.52 D 32.52 D	
ATOM	4468	C	LEU	Ď	124	100.958	81.176	-1.780	1.00	42.34 D	
ATOM	4469	0	LEU	D	124	102.020	81.518	-2.287	1.00	42.34 D	
ATOM	4470	N	TYR	D	125	99.831	81.080	-2.468	1.00	44.44 D	)

WO 02/24722 PCT/IL01/00871

ATOM	4471	CA	TYR	D	125	99.820	81.392	-3.882	1.00	44.44	D
ATOM	4472	CB	TYR	Ď	125	100.692	80.382	-4.641	1.00	31.44	Ď
ATOM	4473	CG			125	100.032	78.977	-4.693	1.00	31.44	
			TYR	D							D
ATOM	4474	CD1	TYR	D	125	99.250	78.604	-5.711	1.00	31.44	D
ATOM	4475	CE1	TYR	D	125	98.683	77.338	-5.744	1.00	31.44	D
ATOM	4476	CD2	TYR	D	125	100.415	78.037	-3.694	1.00	31.44	D
ATOM	4477	CE2	TYR	D	125	99.842	76.760	-3.716	1.00	31.44	D
ATOM	4478	CZ	TYR	D	125	98.978	76.423°	-4.748	1.00	31.44	D
ATOM	4479	OH	TYR	D	125	98.383	75.178	-4.802	1.00	31.44	D
ATOM	4480	С	TYR	D	125	98.392	81.352	-4.397	1.00	44.44	D
ATOM	4481	0	TYR	D	125	97.518	80.760	-3.761	1.00	44.44	D
ATOM	4482	N	GLY	D	126	98.163	81.991	-5.540	1.00	40.42	D
ATOM	4483	CA	GLY	Ď.	126	96.843	82.000	-6.134	1.00	40.42	D
ATOM	4484	Ċ	GLY	Ď	126	96.752	80.814	-7.064	1.00	40.42	Ď
ATOM	4485	ŏ	GLY	Ď	126	97.617	80.632	-7.914	1.00	40.42	Ď
ATOM	4486	N	SER	Ď	127	95.713	80.002	-6.912	1.00	42.64	Ď
ATOM	4487	CA	SER	Ď	127	95.713 95.547	78.819	-7.743	1.00	42.64	Ď
ATOM	4488	CB	SER	D	127	95.313	77.602	-6.841	1.00	40.20	D
ATOM	4489	OG	SER	D	127	95.106	76.413	-7.587	1.00	40.20	D
ATOM	4490	C	SER	D	127	94.399	78.969	-8.746	1.00	42.64	Ď
ATOM	4491	0	SER	D	127	93.323	79.449	-8.403	1.00	42.64	D
ATOM	4492	N	GLU	D	128	94.632	78.565	-9.989	1.00	50.37	D
ATOM	4493	CA	GLU	D	128	93.598	78.647	-11.015	1.00	50.37	D
ATOM	4494	CB	GLU	D	128	94,175	78.257	-12.377	1.00	100.00	D
ATOM	4495	CG	GLU	D	128	93.173 `	78.296	-13.522	1.00	100.00	D
ATOM	4496	CD	GLU	D	128	93.692	77.604	-14.777	1.00	100.00	D
ATOM	4497	OE1	GLU	D	128	93.858	76.363	-14.754	1.00	100.00	D
ATOM	4498	OE2	GLU	D	128	93.937	78.301	-15.785	1.00	100.00	D
ATOM	4499	c_	GLU	D	128	92.463	77.691	-10.649	1.00	50.37	D
ATOM	4500	Ö	GLU	D	128	91.285	78.004	-10.813	1.00	50.37	D
ATOM	4501	Ň	LYS	Ď	129	92.833	76.521	-10.143	1.00	52.50	Ď
ATOM	4502	CA	LYS	Ď	129	91.856	75.514	-9.764	1.00	52.50	Ď
ATOM	4503	CB	LYS	Ď	129	92.219	74.166	-10.389	1.00	86.48	Ď
ATOM	4504	CG	LYS	Ď	129	92.266	74.186	-11.903	1.00	86.48	Ď
ATOM	4505	CD	LYS	Ď	129	92.522	72.804	-12.470	1.00	86.48	
	4505	CE				92.522	72.859		1.00		D
ATOM			LYS	D	129			-13.980		86.48	D
ATOM	4507	NZ	LYS	D	129	91.497	73.480	-14.631	1.00	86.48	D
ATOM	4508	C	LYS	D	129	91.747	75.356	-8.258	1.00	52.50	D
ATOM	4509	0	LYS	D	129	92.703	75.592	-7.520	1.00	52.50	D
ATOM	4510	N	LEU	D	130	90.561	74.967	-7.811	1.00	37.77	D
ATOM	4511	CA	LEU	D	130	90.311	74.745	-6.402	1.00	37.77	D
ATOM	4512	CB	LEU	D	130	88.810	74.832	<b>-</b> 6.126	1.00	43.69	D
ATOM	4513	CG	LEU	D	130	88.319	74.566	<del>-4</del> .700	1.00	43.69	D
ATOM	4514	CD1	LEU	D	130	89.028	75.484	-3.726	1.00	43.69	D
ATOM	4515	CD2	LEU	D	130	86.805	74.774	-4.643	1.00	43.69	D
ATOM	4516	С	LEU	D	130	90.835	73.350	-6.048	1.00	37.77	D
ATOM	4517	0	LEU	D	130	90.176	72.352	-6.313	1.00	37.77	D
MOTA	4518	N	THR	D	131	92.021	73.281	-5.456	1.00	44.53	D
ATOM	4519	CA	THR	D	131	92.595	71.990	-5.091	1.00	44.53	D
ATOM	4520	СВ	THR	D	131	94.065	71.866	-5.572	1.00	45.27	D
ATOM	4521	OG1	THR	D	131	94.933	72.596	-4.688	1.00	45.27	Ď
ATOM	4522	CG2	THR	Ď	131	94.204	72.424	-6.980	1.00	45.27	Ď
ATOM	4523	C	THR	Ď	131	92.560	71.811	-3.580	1.00	44.53	Ď
ATOM	4524	ŏ	THR	Ď	131	92.086	72.683	-2.852	1.00	44.53	Ď
ATOM	4525	N	GLN	Ď	132	93.070	70.682	-2.052 -3.108	1.00	49.31	Ď
ATOM	4526	CA	GLN	Ď	132	93.079	70.002	-3.108 -1.681	1.00	49.31	Ď
ATOM	4527	CB	GLN	Ď	132	93.493	68.971		1.00		D
A I OIVI	4021	CD	GLIN	U	132	3J.43J	00.871	-1.416	1.00	49.07	U

#### WO 02/24722

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ATOM	4528	CG	GLN	D	132	92.605	67.957	-2.092	1.00	49.07	D
ATOM ATOM	4529 4530	CD OE1	GLN	D	132	92.862	66.551	-1.591	1.00	49.07	D
ATOM	4530	NE2	GLN GLN	D D	132 132	92.377	65.575	-2.165	1.00	49.07	D
ATOM	4532	C	GLN	Ď	132	93.624 94.026	66.440 71.369	-0.506 -0.976	1.00 1.00	49.07 49.31	D
ATOM	4533	ŏ	GLN	Ď	132	93.977	71.539	0.244	1.00	49.31	D D
ATOM	4534	N	GLU	Ď	133	94.892	72.010	-1.748	1.00	39.41	D
ATOM	4535	CA	GLU	Ď	133	95.828	72.950	-1.746 -1.156	1.00	39.41	Ď
ATOM	4536	CB	GLU	Ď	133	97.005	73.196	-2.093	1.00	50.87	D
ATOM	4537	CG	GLU	Ď	133	97.725	71.948	-2.514	1.00	50.87	Ď
ATOM	4538	CD	GLU	D	133	99.155	72.232	-2.870	1.00	50.87	Ď
ATOM	4539	OE1	GLU	D	133	99.407	73.240	-3.560	1.00	50.87	D
MOTA	4540	OE2	GLU	D	133	100.030	71.447	-2.458	1.00	50.87	D
ATOM	4541	С	GLU	. D	133	95.120	74.264	-0.893	1.00	39.41	D
ATOM	4542	0	GLU	D	133	95.673	75.160	-0.262	1.00	39.41	D
ATOM	4543	N	CYS	D	134	93.889	74.366	-1.376	1.00	42.39	D
MOTA	4544	CA	CYS	D	134	93.111	75.585	-1.222	1.00	42.39	D
ATOM	4545	CB	CYS	D	134	92.427	75.914	-2.545	1.00	45.18	D
ATOM	4546	SG	CYS	D	134	93.588	75.980	-3.909	1.00	45.18	D
MOTA	4547 4548	C	CYS	D	134	92.071	75.509	-0.113	1.00	42.39	D
ATOM ATOM	4549	O N	CYS VAL	D	134	91.186	76.352	-0.027	1.00	42.39	D
ATOM	4550	CA	VAL	D	135 135	92.186	74.505	0.741	1.00	38.89	D
ATOM	4551	CB	VAL	D D	135	91.239 90.637	74.334 72.926	1.821 1.781	1.00 1.00	38.89 29.51	D
	4552	CG1	VAL	Ď	135	89.651	72.749	2.915	1.00	29.51	D D
ATOM	4553	CG2	VAL	Ď	135	89.960	72.703	0.441	1.00	29.51	D
ATOM	4554	C	VAL	Ď	135	91.922	74.573	3.156	1.00	38.89	Ď
ATOM	4555	Ŏ	VAL	Ď	135	92.879	73.877	3.514	1.00	38.89	Ď
ATOM	4556	N	PHE	D	136	91.427	75.558	3.899	1.00	32.74	D
ATOM	4557	CA	PHE	D	136	92.036	75.873	5.174	1.00	32.74	Ď
ATOM	4558	CB	PHE	D	136	92.561	77.312	5.158	1.00	37.72	D
ATOM	4559	CG	PHE	D	136	93.515	77.600	4.044	1.00	37.72	D
ATOM	4560	CD1	PHE	D	136	93.051	77.807	2.751	1.00	37.72	D
ATOM	4561	CD2	· PHE	D	136	94.880	77.675	4.285	1.00	37.72	Ď
ATOM	4562	CE1	PHE	D	136	93.933	78.089	1.713	1.00	37.72	D
MOTA	4563	CE2	PHE	D	136	95.777	77.959	3.247	1.00	37.72	D
ATOM ATOM	4564 4565	CZ C	PHE PHE	D	136 136	95.303	78.165	1.966	1.00	37.72	D
ATOM	4566	Ö	PHE	D D	136	91.145 89.909	75.688 75.745	6.402	1.00	32.74	D
ATOM	4567	N	ARG	Ď	137	91.802	75.745 75.466	6.333 7.533	1.00 1.00	32.74 35.24	D D
ATOM	4568	CA	ARG	Ď	137	91.120	75.313	8.799	1.00	35.24 35.24	D
ATOM	4569	СВ	ARG	Ď	137	91.952	74.467	9.743	1.00	36.01	Ď
ATOM	4570	CG	ARG	D	137	92.142	73.053	9.297	1.00	36.01	Ď
ATOM	4571	CD	ARG	D	137	92.856	72.262	10.380	1.00	36.01	Ď
ATOM	4572	NE	ARG	D	137	92.976	70.852	10.024	1.00	36.01	D
ATOM	4573	CZ	ARG	D	137	93.439	69.917	10.842	.1.00	36.01	D
ATOM	4574	NH1	ARG	D	137	93.829	70.247	12.067	1.00	36.01	D
ATOM	4575	NH2	ARG	D	137	93.500	68.658	10.438	1.00	36.01	D
ATOM	4576	C	ARG	D	137	90.975	76.710	9.382	1.00	35.24	D
ATOM	4577	0	ARG	D	137	91.974	77.364	9.713	1.00	35.24	D
MOTA MOTA	4578 4579	N	GLU GLU	D	138	89.730	77.172	9.479	1.00	34.60	D
ATOM	4579	CA CB	GLU	D D	138	89.428	78.486	10.031	1.00	34.60	D
ATOM	4581	CG	GLU	D	138 138	88.292 87.700	79.141 80.394	9.238 9.876	1.00 1.00	37.71 37.71	D
ATOM	4582	CD	GLU	Ď	138	86.586	80.978	9.038	1.00	37.71 37.71	D D
ATOM	4583	OE1	GLU	Ď	138	86.828	81.907	8.232	1.00	37.71	D
ATOM	4584	OE2	GLU	Ď	138	85.449	80.488	9.172	1.00	37.71	Ď
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ATOM	4585	С	GLU	D	138	89.009	78.269	11.478	1.00	34.60	D
ATOM	4586	ŏ	GLU	Ď	138	88.023	77.593				Ď
							-	11.756	1.00	34.60	
ATOM	4587	N	GLN	D	139	89.764	78.837	12.402	1.00	42.07	D
ATOM	4588	CA	GLN	D	139	89.458	78.669	13.810	1.00	42.07	D
ATOM	4589	CB	GLN	D	139	90.325	77.558	14.404	1.00	27.07	D
ATOM	4590	CG	GLN	Ď	139	90.109	76.224	13.736	1.00	27.07	Ď
ATOM	4591	CD	GLN			91.081					
				D	139		75.172	14.201	1.00	27.07	D
ATOM	4592	OE1	GLN	D	139	91.843	75.380	15.152	1.00	27.07	D
ATOM	. 4593	NE2	GLN	D	139	91.060	74.023	13.535	1.00	27.07	D
ATOM	4594	С	GLN	D	139	89.662	79.954	14.579	1.00	42.07	D
ATOM	4595	0	GLN	D	139	90.679	80.633	14.435	1.00	42.07	D
ATOM	4596	N	PHE	D	140	88.670	80.281	15.393	1.00	32.04	Ď
ATOM	4597	CA	PHE	Ď	140	88.694	81.481				
								16.210	1.00	32.04	D
ATOM	4598	СВ	PHE	D	140	87.542	81.430	17.211	1.00	27.68	D
ATOM	4599	CG	PHE	D	140	87.417	82.656	18.041	1.00	27.68	D
ATOM	4600	CD1	PHE	D	140	86.624	83.721	17.612	1.00	27.68	D
ATOM	4601	CD2	PHE	D	140	88.107	82.768	19.247	1.00	27.68	D
ATOM	4602	CE1	PHE	D	140	86.515	84.880	18.376	1.00	27.68	D
ATOM	4603	CE2	PHE	Ď	140	88.008	83.925	20.021	1.00	27.68	Ď
ATOM	4604	CZ	PHE								
				D	140	87.213	84.983	19.587	1.00	27.68	D
ATOM	4605	C	PHE	D	140	90.007	81.596	16.980	1.00	32.04	D
ATOM	4606	0	PHE	D	140	90.534	80.598	17.461	1.00	32.04	D
ATOM	4607	N	GLU	D	141	90.530	82.809	17.097	1.00	36.24	D
ATOM	4608	CA	GLU	D	141	91.755	83.020	17.854	1.00	36.24	D
ATOM	4609	CB	GLU	D	141	92.888	83.506	16.946	1.00	33.76	D
ATOM	4610	CG	GLU	Ď	141	94.185	83.848	17.695	1.00		
			GLU				00.040			33.76	D
ATOM	4611	CD		D	141	94.843	82.637	18.365	1.00	33.76	D
ATOM	4612	OE1	GLU	D	141	94.561	81.488	17.962	1.00	33.76	D
ATOM	4613	OE2	GLU	D	141	95.665	82.836	19.283	1.00	33.76	D
ATOM	4614	С	GLU	D	141	91.496	84.054	18.955	1.00	36.24	D
ATOM	4615	0	GLU	D	141	91.553	83.728	20.137	1.00	36.24	D
ATOM	4616	N	GLU	D	142	91.209	85.292	18.552	1.00	38.85	D
ATOM	4617	CA	GLU	Ď	142	90.935	86.379	19.486	1.00	38.85	Ď
ATOM	4618	CB	GLU	Ď	142	92.232			1.00		
							86.851	20.148		50.41	D
ATOM	4619	CG	GLU	D	142	93.399	87.107	19.191	1.00	50.41	D
ATOM	4620	CD	GLU	D	142	93.472	88.539	18.652	1.00	50.41	D
MOTA	4621	OE1	GLU	D	142	92.822	89.443	19.231	1.00	50.41	D
ATOM	4622	OE2	GLU	D	142	94.206	88.760	17.657	1.00	50.41	D
ATOM	4623	С	GLU	D	142	90.234	87.563	18.817	1.00	38.85	D
ATOM	4624	0	GLU	D	142	90.552	87.935	17.682	1.00	38.85	D
ATOM	4625	Ň	ASN	D	143	89.263	88.134	19.525	1.00	36.40	Ď
ATOM	4626	CA	ASN	Ď	143	88.507		19.035			
							89.283		1.00	36.40	D
ATOM	4627	СВ	ASN	D	143	89.342	90.542	19.219	1.00	41.86	D
ATOM	4628	CG	ASN	D	143	89.700	90.769	20.675	1.00	41.86	D
ATOM	4629	OD1	ASN	D	143	88.819	90.972	21.512	1.00	41.86	D
ATOM	4630	ND2	ASN	D	143	90.988	90.710	20.991	1.00	41.86	D
ATOM	4631	С	ASN	D	143	88.028	89.154	17.597	1.00	36.40	D
ATOM	4632	Ō	ASN	D	143	88.022	90.118	16.832	1.00	36.40	Ď
ATOM	4633	Ň	TRP	D	144	87.611	87.941	17.254	1.00	38.51	Ď
ATOM	4634	CA	TRP	D	144	87.103	87.621	15.938	1.00	38.51	D
ATOM	4635	CB	TRP	D	144	85.967	88.584	15.570	1.00	36.09	D
MOTA	4636	CG	TRP	D	144	84.848	88.416	16.564	1.00	36.09	D
ATOM	4637	CD2	TRP	D	144	84.101	87.212	16.814	1.00	36.09	D
ATOM	4638	CE2	TRP	D	144	83.298	87.449	17.950	1.00	36.09	D
ATOM	4639	CE3	TRP	D	144	84.040	85.954	16.189	1.00	36.09	D
ATOM	4640	CD1	TRP	Ď	144	84.466	89.307	17.527	1.00	36.09	Ď
ATOM	4641	NE1	TRP	Ď	144	83.544	88.734	18.362	1.00	36.09	Ď
•				_		00,0	99.707			55.00	_

WO 02/24722 PCT/IL01/00871

ATOM	4642	CZ2	TRP	D	144	82.439	86.469	18.486	1.00	36.09 D
ATOM	4643	CZ3	TRP	Ď	144	83.186	84.974	16.723	1.00	
ATOM	4644	CH2	TRP	D	144	82.397	85.244	17.860	1.00	36.09 D
ATOM	4645	C	TRP	D	144	88.172	87.515	14.859	1.00	38.51 D
ATOM	4646	0	TRP	D	144	87.881	87.490	13.658	1.00	38.51 D
ATOM	4647	N	TYR	D	145	89.420	87.444	15.307	1.00	36.09 D
ATOM	4648	CA	TYR	D	145	90.530	87.217	14.395	1.00	36.09 D
ATOM	4649	СВ	TYR	D	145	91.858	87.715	14.969	1.00	42.84 D
ATOM	4650	CG	TYR	Ď	145	92.185	89.152	14.679	1.00	42.84 D
ATOM	4651	CD1				91.881				
			TYR	D	145		90.156	15.592	1.00	42.84 D
ATOM	4652	CE1	TYR	D.	145	92.208	91.475	15.326	1.00	42.84 D
ATOM	4653	CD2	TYR	D	145	92.821	89.506	13.490	1.00	42.84 D
ATOM	4654	CE2	TYR	D	145	93.153	90.821	13.211	1.00	42.84 D
ATOM	4655	CZ	TYR	D	145	92.846	91.801	14.130	1.00	42.84 D
ATOM	4656	ОН	TYR	D	145	93.182	93.101	13.852	1.00	42.84 D
ATOM	4657	С	TYR	D	145	90.584	85.689	14.350	1.00	36.09 D
ATOM	4658	Ō	TYR	Ď	145	90.388	85.028	15.370	1.00	36.09 D
ATOM	4659	N	ASN	Ď	146	90.829	85.124	13.181	1.00	41.61 D
ATOM	4660	CA	ASN	Ď	146	90.916				
							83.679	13.076	1.00	41.61 D
ATOM	4661	CB	ASN	D	146	89.920	83.142	12.052	1.00	28.69 D
ATOM	4662	CG	ASN	D	146	88.497	83.479	12.383	1.00	28.69 D
ATOM	4663	OD1	ASN	D	146	88.023	83.179	13.474	1.00	28.69 D
ATOM	4664	ND2	ASN	D	146	87.794	84.088	11.434	1.00	28.69 D
ATOM	4665	С	ASN	D	146	92.305	83.325	12.587	1.00	41.61 D
ATOM	4666	0	ASN	D	146	93.051	84.187	12.121	1.00	41.61 D
ATOM	4667	N	THR	D	147	92.656	82.054	12.715	1.00	27.33 D
ATOM	4668	CA	THR	D	147	93.924	81.565	12.197	1.00	27.33 D
ATOM	4669	СВ	THR	Ď	147	94.697	80.688	13.201	1.00	29.47 D
ATOM	4670	0G1	THR	Ď	147	93.852	79.624	13.662		
ATOM	4671	CG2							1.00	29.47 D
			THR	D	147	95.196	81.525	14.378	1.00	29.47 D
ATOM	4672	C	THR	D	147	93.459	80.685	11.062	1.00	27.33 D
ATOM	4673	0	THR	D	147	92.388	80.092	11.144	1.00	27.33 D
ATOM	4674	N	TYR	D	148	94.237	80.627	9.992	1.00	36.75 D
ATOM	4675	CA	TYR	D	148	93.901	79.786	8.851	1.00	36.75 D
ATOM	4676	CB	TYR	D	<sup>'</sup> 148	93.631	80.655	7.625	1.00	29.56 D
ATOM	4677	CG	TYR	D	148	92.384	81.486	7.772	1.00	29.56 D
ATOM	4678	CD1	TYR	D	148	91.146	81.003	7.336	1.00	29.56 D
ATOM	4679	CE1	TYR	D	148	89.975	81.704	7.570	1.00	29.56 D
ATOM	4680	CD2	TYR	D	148	92.418	82.712	8.443	1.00	29.56 D
ATOM	4681	CE2	TYR	Ď	148	91.251	83.431	8.689	1.00	29.56 D
ATOM	4682	CZ	TYR	Ď	148	90.031	82.919	8.255	1.00	29.56 D
ATOM	4683	OH	TYR	Ď	148		83.599			
ATOM		C				88.873		8.544	1.00	29.56 D
	4684		TYR	D	148	95.096	78.877	8.619	1.00	36.75 D
ATOM	4685	0	TYR	D	148	96.212	79.354	8.405	1.00	36.75 D
ATOM	4686	N	SER	D	149	94.877	77.569	8.699	1.00	36.92 D
ATOM	4687	CA	SER	D	149	95.967	76.631	8.487	1.00	36.92 D
ATOM	4688	CB	SER	D	149	96.349	75.930	9.792	1.00	29.65 D
ATOM	4689	OG	SER	D	149	95.338	75.033	10.215	1.00	29.65 D
ATOM	4690	С	SER	D	149	95.624	75.589	7.435	1.00	36.92 D
ATOM	4691	0	SER	D	149	94.444	75.277	7.207	1.00	36.92 D
ATOM	4692	Ň	SER	Ď	150	96.670	75.065	6.787	1.00	36.62 D
ATOM	4693	CA	SER	Ď	150	96.524	74.047	5.753	1.00	36.62 D
ATOM	4694	CB	SER	Ď	150	97.898	73.616	5.215	1.00	33.82 D
ATOM	4695	OG	SER		150	97.794				
				D			72.495	4.340	1.00	33.82 D
MOTA	4696	C	SER	D	150	95.839	72.837	6.346	1.00	36.62 D
ATOM	4697	0	SER	Ď	150	96.202	72.381	7.433	1.00	36.62 D
ATOM	4698	N	ASN	D	151	94.846	72.317	5.638	1.00	34.37 D

#### WO 02/24722

# FIGURE 2 Continued

#### PCT/IL01/00871

ATOM	4699	CA	ASN	D	151	94.156	71.132	6.117	1.00	34.37	D
ATOM	4700	CB	ASN	D	151	92.671	71.210	5.760	1.00	31.60	D
ATOM 1	4701	CG	ASN	D	151	91.849	70.124	6.432	1.00	31.60	D
ATOM	4702	OD1	ASN	D	151	91.924	69.942	7.644	1.00	31.60	D
ATOM	4703	ND2	ASN	D	151	91.049	69.406	5.645	1.00	31.60	D
ATOM	4704	С	ASN	D	151	94.814	69.918	5.451	1.00	34.37	D
ATOM	4705	0	ASN	D	151	94.351	68.794	5.579	1.00	34.37	D
ATOM	4706	N	LEU	D	152	95.924	70.164	4.762	1.00	46.72	D
ATOM	4707	CA	LEU	D	152	96.646	69.124	4.041	1.00	46.72	D
ATOM	4708	CB	LEU	D	152	96.731	69.511	2.569	1.00	49.63	D
ATOM	4709	CG	LEU	D	152	97.437	68.610	1.563	1.00	49.63	D
ATOM	4710	CD1	LEU	D	152	96.736	67.264	1.461	1.00	49.63	D
ATOM ·	4711	CD2	LEU	D	152	97.418	69.312	0.209	1.00	49.63	D
ATOM	4712	С	LEU	D	152	98.047	68.869	4.571	1.00	46.72	D
ATOM	4713	0	LEU	D	152	98.440	67.723	4.765	1.00	46.72	D
ATOM	4714	N	TYR	D	153	98.796	69.939	4.805	1.00	41.01	D
ATOM	4715	CA	TYR	D	153	100.162	69.827	5.294	1.00	41.01	D
ATOM	4716	CB	TYR	D	153	101.097	70.661	4.422	1.00	48.93	D
ATOM	4717	CG	TYR	D	153	100.974	70.372	2.948	1.00	48.93	D
ATOM	4718	CD1	TYR	D	153	101.126	69.075	2.462	1.00	48.93	D
ATOM	4719	CE1	TYR	D	153	101.034	68.799	1.107	1.00	48.93	D
ATOM	4720	CD2	TYR	D	153	100.723	71.393	2.039	1.00	48.93	D

ATOM	4721	CE2	TYR	D	153	100.628	71.132	0.679	1.00	48.93	D
ATOM	4722	CZ	TYR	D	153	100.786	69.831	0.221	1.00	48.93	D
ATOM	4723	ОН	TYR	D	153	100.692	69.563	-1.120	1.00	48.93	D
ATOM	4724	Č.	TYR	Ď	153	100.281	70.293	6.731	1.00	41.01	Ď
ATOM	4725	0	TYR	D	153	99.521	71.147	7.172	1.00	41.01	D
ATOM	4726	N	LYS	D	154	101.257	69.746	7.447	1.00	42.63	D
ATOM	4727	CA	LYS	D	154	101.481	70.091	8.847	1.00	42.63	D
ATOM	4728	CB	LYS	D	154	100.459	69.372	9.723	1.00	57.88	D
ATOM	4729	CG	LYS	D	154	100.563	67.863	9.591	1.00	57.88	D
ATOM	4730	CD	LYS	D	154	99.811	67.136	10.672	1.00	57.88	D
ATOM	4731	CE	LYS	D	154	99.973	65.637	10.508	1.00	57.88	Ď
ATOM	4732	NZ	LYS	Ď	154	99.252	64.884	11.569	1.00	57.88	Ď
ATOM	4733	C	LYS	Ď	154	102.874	69.639	9.275			
	4734								1.00	42.63	D
ATOM		0	LYS	D	154	103.590	69.019	8.499	1.00	42.63	D
ATOM	4735	N.	HIS	D	155	103.250	69.957	10.509	1.00	50.32	D
ATOM	4736	CA	HIS	D	155	104.532	69.527	11.052	1.00	50.32	D
ATOM	4737	CB	HIS	D	155	104.940	70.389	12.247	1.00	44.66	D
ATOM	4738	CG	HIS	D	155	105.301	71.794	11.879	1.00	44.66	D
ATOM	4739	CD2	HIS	D	155	104.641	72.963	12.061	1.00	44.66	D
ATOM	4740	ND1	HIS	D	155	106.468	72.114	11.219	1.00	44.66	D
ATOM	4741	CE1	HIS	Ď	155	106.512	73.418	11.011	1.00	44.66	Ď
ATOM	4742	NE2	HIS	Ď	155	105.414	73.956	11.512	1.00	44.66	
ATOM	4743	C									D
			HIS	D	155	104.294	68.098	11.509	1.00	50.32	D
ATOM	4744	0	HIS	D	155	103.606	67.864	12.499	1.00	50.32	D
ATOM	4745	N .	VAL	D	156	104.855	67.143	10.778	1.00	43.97	D
ATOM	4746	CA	VAL	D	156	104.680	65.735	11.093	1.00	43.97	D
ATOM	4747	CB	VAL	D	156	105.289	64.870	9.973	1.00	43.29	D
MOTA	4748	CG1	VAL	D	156	105.313	63.419	10.377	1.00	43.29	D
ATOM	4749	CG2	VAL	D	156	104.480	65.053	8.689	1.00	43.29	D
ATOM	4750	С	VAL	D	156	105.254	65.307	12.441	1.00	43.97	Ď
ATOM	4751	0	VAL	Ď	156	104.805	64.321	13.030	1.00	43.97	Ď
ATOM	4752	Ň	ASP	Ď	157	106.231	66.044	12.952	1.00	44.60	Ď
ATOM	4753	CA	ASP	Ď	157	106.819	65.655				
ATOM	4754	CB	ASP					14.223	1.00	44.60	D
				D	157	108.302	66.046	14.260	1.00	41.65	D
ATOM	4755	CG	ASP	D	157	108.526	67.524	14.041	1.00	41.65	D
ATOM	4756	OD1	ASP	D	157	107.612	68.192	13.513	1.00	41.65	D
ATOM	4757	OD2	ASP	D	157	109.627	68.013	14.383	1.00	41.65	D
ATOM	4758	С	ASP	D	157	106.096	66.171	15.464	1.00	44.60	D
ATOM	4759	0	ASP	D	157	106.047	65.477	16.485	1.00	44.60	D
ATOM	4760	N	THR	D	158	105.524	67.370	15.390	1.00	49.07	D
ATOM	4761	CA	THR	D	158	104.822	67.920	16.548	1.00	49.07	D
ATOM	4762	CB	THR	D	158	105.238	69.367	16.845	1.00	39.02	Ď
ATOM	4763	OG1	THR	Ď	158	104.887	70.201	15.732	1.00	39.02	Ď
ATOM	4764	CG2	THR	Ď	158	106.734	69.449	17.114	1.00	39.02	
ATOM	4765	C	THR			100.734					D
				D	158		67.912	16.389	1.00	49.07	D
MOTA	4766	0	THR	D	158	102.580	68.039	17.369	1.00	49.07	D
ATOM	4767	N	GLY	D	159	102.852	67.746	15.158	1.00	35.78	D
ATOM	4768	CA	GLY	D	159	101.423	67.765	14.922	1.00	35.78	D
ATOM	4769	С	GLY	D	159	100.973	69.202	14.690	1.00	35.78	D
ATOM	4770	0	GLY	D	159	99.835	69.439	14.298	1.00	35.78	D
ATOM	4771	N	ARG	D	160	101.869	70.160	14.929	1.00	42.00	D
ATOM	4772	CA	ARG	D	160	101.569	71.580	14.733	1.00	42.00	D
ATOM	4773	СВ	ARG	D	160	102.774	72.438	15.102	1.00	74.75	Ď
ATOM	4774	CG	ARG	Ď	160	102.630	73.177	16.416	1.00	74.75	Ď
ATOM	4775	CD	ARG	Ď	160	102.680	72.248	17.613	1.00	74.75	D
. 11 OW	7770		AINO	U	100	102.000	14.240	17.013	1.00	14.15	U

ATOM ATOM	4776 4777	NE CZ	ARG ARG	D D	160 160	102.481 103.198	72.982 74.042	18.862 19.234	1.00 1.00	74.75 D 74.75 D
ATOM	4778	NH1	ARG	D	160	104.171	74.504	18.459	1.00	74.75 D
ATOM ATOM	4779 4780	NH2 C	ARG ARG	D D	160 160	102.937 101.148	74.650 71.901	20.385 13.301	1.00 1.00	74.75 D 42.00 D
ATOM	4781	ŏ	ARG	Ď	160	101.535	71.225	12.345	1.00	42.00 D
ATOM	4782	N	ARG	D	161	100.375	72.966	13.153	1.00	37.30 D
ATOM ATOM	4783 4784	CA CB	ARG ARG	D D	161 161	99.855 98.435	73.354	11.849	1.00 1.00	37.30 D
. ATOM	4785	CG	ARG	Ď	161	96.435 97.527	73.858 72.746	12.050 12.508	1.00	42.99 D 42.99 D
ATOM	4786	CD	ARG	Ď	161	97.188	71.971	11.284	1.00	42.99 D
ATOM	4787	NE	ARG	D	161	97.062	70.547	11.492	1.00	42.99 D
ATOM ATOM	4788 4789	CZ NH1	ARG ARG	D D	161 161	96.793 96.628	69.696 70.137	10.510 9.270	1.00 1.00	42.99 D 42.99 D
ATOM	4790	NH2	ARG	· D	161	96.692	68.404	10.769	1.00	42.99 D
ATOM	4791	С	ARG	D	161	100.660	74.358	11.047	1.00	37.30 D
ATOM	4792	0	ARG	D	161	101.588	74.976	11.555	1.00	37.30 D
ATOM ATOM	4793 4794	N CA	TYR TYR	D D	162 162	100.302 100.932	74.487 75.436	9.774 8.856	1.00 1.00	40.61 D 40.61 D
ATOM	4795	CB	TYR.	Ď	162	100.302	74.827	7.464	1.00	51.48 D
ATOM	4796	CG	TYR	D	162	102.277	73.905	7.273	1.00	51.48 D
ATOM ATOM	4797 4798	CD1 CE1	TYR	D	162	103.022	73.441	8.353	1.00	51.48 D
ATOM	4799	CD2	TYR TYR	D D	162 162	104.081 102.620	72.564 73.471	8.164 5.999	1.00 1.00	51.48 D 51.48 D
ATOM	4800	CE2	TYR	Ď	162	103.670	72.594	5.794	1.00	51.48 D
ATOM	4801	CZ	TYR	D	162	104.398	72.142	6.876	1.00	51.48 D
ATOM ATOM	4802 4803	OH C	TYR TYR	D D	162 162	105.438 99.946	71.272	6.665	1.00	51.48 D
ATOM	4804	Ö	TYR	D	162	99.946 98.896	76.589 76.437	8.728 8.087	1.00 1.00	40.61 D 40.61 D
ATOM	4805	Ň	TYR	Ď	163	100.272	77.739	9.307	1.00	49.07 D
ATOM	4806	CA	TYR	D	163	99.362	78.874	9.249	1.00	49.07 D
ATOM ATOM	4807 4808	CB CG	TYR TYR	D D	163 163	99.312 98.743	79.590 78.731	10.601 11.698	1.00 1.00	39.23 D
ATOM	4809	CD1	TYR	Ď	163	99.548	77.825	12.389	1.00	39.23 D 39.23 D
ATOM	4810	CE1	TYR	D	163.	99.019	76.986	13.358	1.00	39.23 D
ATOM	4811	CD2	TYR	D	163	97.387	78.777	12.007	1.00	39.23 D
MOTA MOTA	4812 4813	CE2 CZ	TYR TYR	D D	163 163	96.849 97.670	77.942 77.047	12.970 13.643	1.00 1.00	39.23 D 39.23 D
ATOM	4814	OH	TYR	Ď	163	97.132	76.210	14.585	1.00	39.23 D 39.23 D
ATOM	4815	С	TYR	D	163	99.624	79.908	8.185	1.00	49.07 D
ATOM ATOM	4816	0	TYR	D	163	100.768	80.209	7.852	1.00	49.07 D
ATOM	4817 4818	N CA	VAL VAL	D D	164 164	98.536 98.625	80.447 81.511	7.647 6.673	1.00 1.00	34.49 D 34.49 D
ATOM	4819	СВ	VAL	Ď	164	97.243	81.855	6.112	1.00	30.21 D
ATOM	4820	CG1	VAL	D	164	97.335	83.106	5.226	1.00	30.21 D
ATOM ATOM	4821 4822	CG2 C	VAL	D	164	96.693	80.667	5.326	1.00	30.21 D
ATOM	4823	Ö	VAL VAL	D D	164 164	99.152 98.739	82.700 82.911	7.481 8.628	1.00 1.00	34.49 D 34.49 D
ATOM	4824	N	ALA	Ď	165	100.070	83.470	6.912	1.00	36.68 D
ATOM	4825	CA	ALA	D	165	100.598	84.603	7.650	1.00	36.68 D
ATOM ATOM	4826 4827	CB C	ALA ALA	D D	165 165	101.591 101.246	84.118 85.657	8.711 6.773	1.00 1.00	25.46 D
ATOM	4828	Ö	ALA	D	165	101.246	85.354	6.773 5.695	1.00	36.68 D 36.68 D
ATOM	4829	N	LEU	D	166	101.193	86.900	7.245	1.00	47.49 D
ATOM	4830	CA	LEU	D	166	101.781	88.038	6.554	1.00	47.49 D

WO 02/24722

FIGURE 2 Continued

# PCT/IL01/00871

ATOM	4831	СВ	LEU		166	100.703	89.026	6.115	1.00	42.29	D
MOTA	4832	CG	LEU	D	166	99.750	88.578	5.007	1.00	42.29	D
ATOM ATOM	4833 4834	CD1 CD2	LEU LEU	D	166	98.717	89.667	4.751	1.00	42.29	D
ATOM	4835	CD2	LEU	D D	166	100.534	88.293	3.747	1.00	42.29	D
ATOM	4836	0	LEU	D	166 166	102.719	88.722	7.533	1.00	47.49	D
ATOM	4837	N	ASN	Ď	167	102.286 103.998	89.162 88.814	8.599 7.163	1.00 1.00	47.49 41.94	D D
ATOM	4838	CA	ASN	Ď	167	105.996	89.428	8.010	1.00	41.94	D
ATOM	4839	CB	ASN	Ď	167	105.019	89.352	7.313	1.00	42.59	Ď
ATOM	4840	CG	ASN	Ď	167	106.905	87.949	7.238	1.00	42.59	Ď
ATOM	4841	OD1	ASN	Ď	167	107.080	87.287	8.263	1.00	42.59	Ď
ATOM	4842	ND2	ASN	Ď	167	107.165	87.477	6.022	1.00	42.59	Ď
ATOM	4843	C	ASN	D	167	104.750	90.877	8.410	1.00	41.94	D
ATOM	4844	0	ASN	D	167	103.899	91.555	7.816	1.00	41.94	D
ATOM	4845	N	LYS	D	168	105.493	91.347	9.413	1.00	58.07	D
ATOM	4846	CA	LYS	D	168	105.353	92.717	9.894	1.00	58.07	D
ATOM	4847	CB	LYS	D	168	106.375	93.018	10.991	1.00	82.27	D
ATOM	4848	ÇG	LYS	D	168	106.063	92.336	12.309	1.00	82.27	D
ATOM	4849	CD	LYS	D	168	106.782	92.994	13.486	1.00	82.27	D
ATOM	4850	CE	LYS	D	168	106.294	92.420	14.822	1.00	82.27	D
ATOM	4851	NZ	LYS	D	168	106.876	93.110	16.017	1.00	82.27	D
ATOM	4852	С	LYS	D	168	105.514	93.713	8.755	1.00	58.07	D
ATOM ATOM	4853	0	LYS	D	168	105.024	94.836	8.836	1.00	58.07	D
ATOM	4854 4855	N CA	ASP ASP	D	169	106.184	93.298	7.686	1.00	46.94	D
ATOM	4856	CB	ASP	D D	169 169	106.387	94.175	6.545	1.00	46.94	D
ATOM	4857	CG	ASP	Ď	169	107.816 108.050	94.036 92.728	6.028 5.323	1.00 1.00	66.59	D
ATOM	4858	OD1	ASP	Ď	169	100.030	91.737	5.673	1.00	66.59 66.59	D ·
ATOM	4859	OD2	ASP	Ď	169	108.913	92.687	4.424	1.00	66.59	D
ATOM	4860	C	ASP	Ď	169	105.389	93.899	5.420	1.00	46.94	Ď
ATOM	4861	Ŏ	ASP	D	169	105.536	94.417	4.311	1.00	46.94	Ď
ATOM	4862	N	GLY	D	170	104.381	93.075	5.704	1.00	46.92	D
ATOM	4863	CA	GLY	D	170	103.355	92.788	4.713	1.00	46.92	Ď
ATOM	4864	С	GLY	D	170	103.666	91.757	3.644	1.00	46.92	D
ATOM	4865	0	GLY	D	170	102.911	91.595	2.687	1.00	46.92	D
ATOM	4866	N	THR	D	171	104.775	91.052	3.790	1.00	38.32	D
ATOM	4867	CA	THR	D	171	105.124	90.039	2.809	1.00	38.32	D
ATOM	4868	CB	THR	D	171	106.651	89.942	2.637	1.00	38.90	D
MOTA	4869	OG1	THR	D	171	107.246	89.498	3.864	1.00	38.90	D
ATOM ATOM	4870 4871	CG2 C	THR	D	171	107.225	91.297	2.289	1.00	38.90	D
ATOM	4872	Ö	THR THR	D D	171 171	104.597 104.460	88.695	3.293	1.00	38.32	D
ATOM	4873	N	PRO	D	171	104.460	88.471	4.498	1.00	38.32	D
ATOM	4874	CD	PRO	Ď	172	104.200	87.791 87.944	2.360 0.896	1.00 1.00	44.57 46.31	D
ATOM	4875	CA	PRO	Ď	172	103.765	86.478	2.767	1.00	44.57	D D
ATOM	4876	CB	PRO	Ď	172	103.349	85.844	1.444	1.00	46.31	D
ATOM	4877	CG	PRO	Ď	172	104.247	86.516	0.437	1.00	46.31	Ď
ATOM	4878	C	PRO	D	172	104.867	85.698	3.475	1.00	44.57	Ď
ATOM	4879	Ō	PRO	D	172	106.020	85.732	3.057	1.00	44.57	D
ATOM	4880	N	ARG	D	173	104.515	85.017	4.558	1.00	37.48	D
ATOM	4881	CA	ARG	D	173	105.473	84.229	5.323	1.00	37.48	D
ATOM	4882	CB	ARG	D	173	105.254	84.464	6.819	1.00	40.07	D
ATOM	4883	CG	ARG	D	173	106.286	83.838	7.734	1.00	40.07	D
ATOM	4884	CD	ARG	D	173	105.855	83.992	9.185	1.00	40.07	D
ATOM	4885	NE	ARG	D	173	106.850	83.523	10.147	1.00	40.07	D
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ATOM	4886	CZ	ARG	D	173	108.006	84.133	10.405	1.00	40.07	D
ATOM	4887	NH1	ARG	Ď	173	108.336	85.254	9.776	1.00	40.07	D
ATOM	4888	NH2	ARG	Ď	173	108.837	83.618	11.300	1.00	40.07	Ď
ATOM	4889	C	ARG	Ď	173	105.248	82.759	4.974	1.00	37.48	D
ATOM				_							
	4890	0	ARG	D	173	104.207	82.407	4.414	1.00	37.48	D
ATOM	4891	N	GLU	D	174	106.222	81.906	5.281	1.00	47.99	D
ATOM	4892	CA	GLU	D	174	106.096	80.479	4.993	1.00	47.99	D
ATOM	4893	CB	GLU	D	174	107.468	79.814	4.956	1.00	95.11	D
ATOM	4894	CG	GLU	D	174	108.460	80.471	4.032	1.00	95.11	D
ATOM	4895	CD	GLU	D	174	109.762	79.708	3.977	1.00	95.11	D
ATOM	4896	OE1	GLU	D	174	109.748	78.552	3.499	1.00	95.11	D
ATOM	4897	OE2	GLU	D	174	110.795	80.257	4.419	1.00	95.11	D
ATOM	4898	Č.	GLU	Ď	174	105.258	79.825	6.085	1.00	47.99	Ď
ATOM	4899	ŏ .	GLU	Ď	174	105.514	80.021	7.275	1.00	47.99	Ď
ATOM	4900	Ň	GLY	Ď	175	103.314	79.038				
								5.678	1.00	39.14	D
ATOM	4901	CA	GLY	D	175	103.413	78.381	6.645	1.00	39.14	D
ATOM	4902	С	GLY	D	175	104.169	77.474	7.590	1.00	39.14	D
ATOM	4903	0	GLY	D	175	103.674	77.123	8.661	1.00	39.14	D
ATOM	4904	N	THR	D	176	105.377	77.096	7.189	1.00	45.29	D
ATOM	4905	CA	THR	Ð	176	106.219	76.211	7.982	1.00	45.29	D.
ATOM	4906	CB	THR	D	176	107.346	75.605	7.126	1.00	45.75	D
ATOM	4907	OG1	THR	D	176	108.078	76.668	6.498	1.00	45.75	D
ATOM	4908	CG2	THR	D	176	106.777	74.669	6.056	1.00	45.75	D
ATOM	4909	С	THR	Ď	176	106.869	76.943	9.134	1.00	45.29	Ď
ATOM	4910	Ō	THR	Ď	176	107.334	76.319	10.084	1.00	45.29	Ď
ATOM	4911	Ň	ARG	Ď	177	106.898	78.267	9.050	1.00	42.35	Ď
ATOM	4912	CA	ARG	Ď	177	107.526	79.079	10.083	1.00	42.35	D
ATOM	4913	СВ	ARG	D	177	107.320					
ATOM	4914	CG	ARG	Ď			80.089	9.447	1.00	65.75	D
ATOM	4915	CD			177	109.524	79.503	8.490	1.00	65.75	D
			ARG	D	177	110.680	80.478	8.324	1.00	65.75	D
ATOM	4916	NE	ARG	D	177	111.327	80.693	9.614	1.00	65.75	D
ATOM	4917	CZ	ARG	D	177	111.830	81.852	10.028	1.00	65.75	D
ATOM	4918	NH1	ARG	D	177	111.774	82.927	9.247	1.00	65.75	D
ATOM	4919	NH2	ARG	D	177	112.364	81.940	11.242	1.00	65.75	D
ATOM	4920	С	ARG	D	177	106.491	79.837	10.899	1.00	42.35	D
ATOM	4921	0	ARG	D	177	106.658	81.021	11.186	1.00	42.35	D
ATOM	4922	N	THR	D	178	105.427	79.166	11.303	1.00	41.88	D
MOTA	4923	CA	THR	D	178	104.397	79.872	12.045	1.00	41.88	D
ATOM	4924	CB	THR	D	178	103.262	80.301	11.096	1.00	36.87	D
ATOM	4925	OG1	THR	D	178	102.827	79.163	10.340	1.00	36.87	D
ATOM	4926	CG2	THR	D	178	103.751	81.378	10.133	1.00	36.87	Ď
ATOM	4927	C	THR	Ď	178	103.798	79.071	13.174	1.00	41.88	D
ATOM	4928	ŏ	THR	Ď	178	103.663	77.855	13.084	1.00	41.88	D
ATOM	4929	Ň	LYS	Ď	179	103.449	79.766	14.249		43.77	_
ATOM	4930	CA	LYS	Ď	179	103.445			1.00		D
ATOM	4931	CB	LYS				79.131	15.396	1.00	43.77	D
ATOM	4932			Ď	179	103.669	79.308	16.647	1.00	76.20	D
		CG	LYS	D	179	104.980	78.555	16.562	1.00	76.20	D
ATOM	4933	CD	LYS	D	179	105.610	78.370	17.926	1.00	76.20	D
ATOM	4934	CE	LYS	D	179	106.804	77.423	17.854	1.00	76.20	D
ATOM	4935	NZ	LYS	D	179	107.291	77.045	19.214	1.00	76.20	D
ATOM	4936	С	LYS	D	179	101.467	79.810	15.544	1.00	43.77	D
ATOM	4937	0	LYS	D	179	101.357	81.014	15.325	1.00	43.77	D
ATOM	4938	N	ARG	D	180	100.447	79.037	15.902	1.00	43.98	D
MOTA	4939	CA	ARG	D	180	99.085	79.555	16.032	1.00	43.98	D
MOTA	4940	CB	ARG	D	180	98.181	78.519	16.714	1.00	36.86	D

ATOM	4941	CG	ARG	D	180	96.711	78.951	16.849	1.00	36.86	D
ATOM	4942	CD	ARG	D	180	95.926	78.037	17.786	1.00	36.86	D
ATOM	4943	NE	ARG	Ď		95.647					
					180		76.712	17.226	1.00	36.86	D
ATOM	4944	CZ	ARG	D	180	94.565	76.404	16.511	1.00	36.86	D
ATOM	4945	NH1	ARG	D	180	93.641	77.321	16.259	1.00	36.86	D
ATOM	4946	NH2	ARG	D	180	94.403	75.173	16.044	1.00	36.86	D
ATOM	4947	С	ARG	D	180	98.923	80.897	16.741	1.00	43.98	D
ATOM	4948	Ö	ARG	Ď	180	98.293	81.809	16.209	1.00	43.98	Ď
ATOM	4949	N	HIS	D	181	99.503	81.036	17.927	1.00	48.60	D
ATOM	4950	CA	HIS	D	181	99.344	82.274	18.684	1.00	48.60	D
ATOM	4951	CB	HIS	D	181	99.605	81.997	20.161	1.00	41.41	D
ATOM	4952	CG	HIS	<b>D</b> .	181	98.677	80.977	20.738	1.00	41.41	D
ATOM	4953	CD2	HIS	D	181	98.917	79.838	21.432	1.00	41.41	D
ATOM	4954	ND1	HIS	D	181	97.310	81.044	20.570	1.00	41.41	D
ATOM	4955	CE1	HIS								
				D	181	96.747	79.987	21.131	1.00	41.41	D
ATOM	4956	NE2	HIS	D	181	97.699	79.240	21.661	1.00	41.41	D
ATOM	4957	С	HIS	D	181	100.119	83.508	18.241	1.00	48.60	D
ATOM	4958	0	HIS	D	181	99.938	84.591	18.806	1.00	48.60	D
ATOM	4959	N	GLN	D	182	100.968	83.368	17.230	1.00	45.43	D
ATOM	4960	CA	GLN	D	182	101.729	84.516	16.761	1.00	45.43	D
ATOM	4961	CB	GLN	D	182	102.874		15.870			
							84.063		1.00	46.51	D
ATOM	4962	CG	GLN	D	182	103.944	83.337	16.652	1.00	46.51	D
ATOM	4963	CD	GLN	D	182	105.070	82.858	15.778	1.00	46.51	D
ATOM	4964	OE1	GLN	D	182	104.901	81.940	14.969	1.00	46.51	D
ATOM	4965	NE2	GLN	D	182	106.232	83.482	15.924	1.00	46.51	D
ATOM	4966	С	GLN	D	182	100.834	85.495	16.028	1.00	45.43	D
ATOM	4967	Ō	GLN	D	182	99.910	85.108	15.321	1.00	45.43	Ď
ATOM	4968	Ň	LYS	D	183	101.112	86.773	16.212	1.00		
ATOM	4969	CA								42.01	D
			LYS	D	183	100.315	87.809	15.593	1.00	42.01	D
ATOM	4970	CB	LYS	D	183	100.899	89.186	15.916	1.00	72.38	D
ATOM	4971	CG ·	LYS	D	183	100.941	89.489	17.400	1.00	72.38	D
ATOM	4972	CD	LYS	D	183	99.552	89.415	18.019	1.00	72.38	D
ATOM	4973	CE	LYS	D	183	99.609	89.535	19.536	1.00	72.38	D
ATOM	4974	NZ	LYS	D	183	100.233	90.817	19.986	1.00	72.38	D
ATOM	4975	C	LYS	D	183	100.145	87.671	14.091	1.00	42.01	Ď
ATOM	4976	ŏ	LYS	D	183	99.028	87.830	13.586	1.00	42.01	
ATOM	4977	Ň	PHE	D	184						D
ATOM	4978					101.219	87.360	13.364	1.00	38.78	D
		CA	PHE	D	184	101.062	87.294	11.921	1.00	38.78	D
ATOM	4979	CB	PHE	D	184	102.415	87.240	11.191	1.00	52.35	D
ATOM	4980	CG	PHE	D	184	103.415	86.307	11.791	1.00	52.35	D
ATOM	4981	CD1	PHE	D	184	103.083	84.985	12.077	1.00	52.35	D
ATOM	4982	CD2	PHE	D	184	104.717	86.741	12.021	1.00	52.35	D
ATOM	4983	CE1	PHE	D	184	104.040	84.102	12.584	1.00	52.35	D
ATOM	4984	CE2	PHE	Ď	184	105.682	85.875	12.525	1.00	52.35	_
ATOM	4985	CZ	PHE		184						D
				D		105.345	84.548	12.808	1.00	52.35	D
ATOM	4986	C	PHE	D	184	100.122	86.233	11.387	1.00	38.78	D
ATOM	4987	0	PHE	D	184	99.836	86.227	10.192	1.00	38.78	D
ATOM	4988	N	THR	D	185	99.614	85.357	12.253	1.00	36.57	D
ATOM	4989	CA	THR	D	185	98.671	84.332	11.797	1.00	36.57	D
ATOM	4990	CB	THR	D	185	98.864	82.975	12.510	1.00	41.53	D
ATOM	4991	OG1	THR	Ď	185	98.443	83.087	13.872	1.00	41.53	Ď
ATOM	4992	CG2	THR	Ď	185	100.313	82.546	12.468	1.00		
ATOM	4993									41.53	D
		C	THR	D	185	97.235	84.785	12.055	1.00	36.57	D
ATOM	4994	0	THR	D	185	96.283	84.158	11.590	1.00	36.57	D
ATOM	4995	N	HIS	D	186	97.081	85.879	12.794	1.00	36.17	D

WO 02/24722 PCT/IL01/00871

FIGURE 2 Continued

ATOM	4996	CA	HIS	D	186	95.751	86.398	13.106	1.00	36.17	D
ATOM	4997	CB	HIS	D	186	95.819	87.268	14.361	1.00	37.74	D
MOTA	4998	CG	HIS	D	186	96.372	86.550	15.553	1.00	37.74	D
ATOM	4999	CD2	HIS	Ď	186	96.859	85.294	15.686	1.00	37.74	Ď
ATOM	5000	ND1	HIS	Ď	186	96.451	87.125	16.803	1.00	37.74	Ď
ATOM	5001	CE1	HIS	D	186	96.962	86.253	17.654	1.00	37.74	D
ATOM	5002	NE2	HIS	D	186	97.217	85.134	17.003	1.00	37.74	D
MOTA	5003	С	HIS	D	186	95.153	87.186	11.944	1.00	36.17	D
MOTA	5004	0	HIS	D	186	95.734	88.163	11.482	1.00	36.17	D
ATOM	5005	N	PHE	D	187	93.994	86.742	11.463	1.00	34.90	D
ATOM	5006	CA	PHE	D	187	93.338	87.404	10.351	1.00	34.90	Ď
ATOM	5007	СВ	PHE	Ď	187	93.420	86.559	9.079	1.00	43.72	Ď
ATOM	5008	CG	PHE	Ď	187	94.775	86.542	8.447	1.00	43.72	D
ATOM	5009	CD1	PHE		187						
				D		95.786	85.726	8.952	1.00	43.72	D
ATOM	5010	CD2	PHE	D	187	95.047	87.339	7.337	1.00	43.72	D
ATOM	5011	CE1	PHE	Ď	187	97.051	85.706	8.360	1.00	43.72	D
MOTA	5012	CE2	PHE	Ď	187	96.313	87.326	6.736	1.00	43.72	D
ATOM	5013	CZ	PHE	D	187	97.312	86.506	7.250	1.00	43.72	D
ATOM	5014	С	PHE	D	187	91.882	87.702	10.647	1.00	34.90	D
ATOM	5015	0	PHE	D	187	91.104	86.823	11.039	1.00	34.90	D
ATOM	5016	Ň	LEU	Ď	188	91.508	88.953	10.423	1.00	38.29	Ď
ATOM	5017	CA	LEU	Ď	188	90.154	89.378	10.574	1.00	38.29	Ď
ATOM	5018	CB	LEU								
				D	188	90.174	90.723	11.386	1.00	35.67	D
ATOM	5019	CG	LEU	D	188	88.818	91.366	11.628	1.00	35.67	D
ATOM	5020	CD1	LEU	D	188	88.028	90.532	12.617	1.00	35.67	D
ATOM	5021	CD2	LEU	D	188	89.026	92.781	12.146	1.00	35.67	D
ATOM	5022	С	LEU	D	188	89.335	89.487	9.401	1.00	38.29	D
ATOM	5023	0	LEU	D	188	89.689	90.225	8.481	1.00	38.29	D
ATOM	5024	N	PRO	D	189	88.243	88.719	9.314	1.00	40.36	D
ATOM	5025	CD	PRO	D	189	87.906	87.527	10.115	1.00	22.38	Ď
ATOM	5026	CA	PRO	Ď	189	87.415	88.805	8.108	1.00	40.36	D
ATOM	5027	CB	PRO	Ď	189	86.483	87.599	8.225	1.00	22.38	D
ATOM	5028	CG	PRO	Ď	189	87.261					
ATOM	5020	C					86.623	9.091	1.00	22.38	D
			PRO	D	189	86.656	90.114	8.250	1.00	40.36	D
ATOM	5030	0	PRO	D	189	85.950	90.306	9.227	1.00	40.36	D
ATOM	5031	N	ARG	D	190	86.824	91.025	7.305	1.00	35.97	D
ATOM	5032	CA	ARG 1	D	190	86.130	92.300	7.363	1.00	35.97	D
ATOM	5033	CB	ARG	D	190	87.118	93.461	7.251	1.00	32.43	D
MOTA	5034	CG	ARG	D	190	88,136	93.574	8.373	1.00	32.43	D
ATOM	5035	CD	ARG	D	190	89.010	94.800	8.127	1.00	32.43	D
ATOM	5036	NE	ARG	D	190	88.194	96.000	7.989	1.00	32.43	D
ATOM	5037	CZ	ARG	D	190	88.340	96.912	7.033	1.00	32.43	D
ATOM	5038	NH1	ARG	Ď	190	89.278	96.767	6.110	1.00	32.43	D
ATOM	5039	NH2	ARG								_
				D	190	87.542	97.969	7.000	1.00	32.43	D
ATOM	5040	C	ARG	D	190	85.135	92.384	6.215	1.00	35.97	D
ATOM	5041	0	ARG	D	190	85.321	91.764	5.167	1.00	35.97	D
ATOM	5042	N	PRO	D	191	84.055	93.150	6.405	1.00	48.39	D
ATOM	5043	CD	PRO	D	191	83.650	93.840	7.641	1.00	39.44	D
ATOM	5044	CA ·	PRO	D.	191	83.035	93.308	5.373	1.00	48.39	D
ATOM	5045	CB	PRO	D	191	81.893	93.973	6.125	1.00	39.44	D
ATOM	5046	CG	PRO	D	191	82.594	94.789	7.137	1.00	39.44	D
ATOM	5047	C	PRO	Ď	191	83.524	94.168	4.226	1.00	48.39	Ď
ATOM	5048	Ö	PRO	Ď	191	84.457	94.960	4.377	1.00	48.39	Ď
ATOM	5049	N	VAL	Ď	192	82.887	93.998	3.075	1.00	40.09	
ATOM	5050	CA	VAL	D							D
ATOM	3000	$\circ$	VAL	U	192	83.214	94.766	1.890	1.00	40.09	D

ATOM	5051	СВ	· VAL	D	192	83.335	93.853	0.644	1.00	41.60	D
ATOM	5052	CG1	VAL	Ď	192	83.502	94.705	-0.609	1.00	41.60	Ď
ATOM	5053	CG2	VAL	D	192	84.513	92.903	0.802	1.00	41.60	D
ATOM	5054	С	VAL	D	192	82.081	95.763	1.676	1.00	40.09	D
ATOM	5055	0	VAL	D	192	80.895	95.397	1.721	1.00	40.09	D
ATOM	5056	N	ASP	D	193	82.454	97.023	1.469	1.00	45.53	D
ATOM	5057	CA	ASP	D	193	81.495	98.104	1.242	1.00	45.53	Ď
ATOM	5058	CB	ASP	Ď	193		99.416	1.824			
						82.035			1.00	46.23	D
ATOM	5059	CG	ASP	D	193	81.049	100.576	1.701	1.00	46.23	D
ATOM	5060	OD1	ASP	D	193	80.063	100.467	0.932	1.00	46.23	D
ATOM	5061	OD2	ASP	D	193	81.272	101.608	2.374	1.00	46.23	D
ATOM	5062	С	ASP	D	193	81.313	98.247	-0.263	1.00	45.53	D
ATOM	5063	Ō	ASP	Ď	193	82.216	98.693	-0.966	1.00	45.53	Ď
ATOM	5064	Ň	PRO	Ď	194	80.141	97.874	-0.776	1.00		
										58.97	D
ATOM	5065	CD	PRO	D	194	78.954	97.375	-0.065	1.00	48.88	D
ATOM	5066	CA	PRO	D	194	79.885	97.975	-2.214	1.00	58.97	D
ATOM	5067	CB	PRO	D	194	78.400	97.632	-2.319	1.00	48.88	D
ATOM	5068	CG	PRO	D	194	78.196	96.694	-1.169	1.00	48.88	D
ATOM	5069	С	PRO	D	194	80.212	99.356	-2.795	1.00	58.97	Ď
ATOM	5070	Ŏ	PRO	Ď	194	80.672	99.462	-3.935	1.00	58.97	D
ATOM	5071	N	ASP	D	195	79.974	100.405	-2.010	1.00	70.32	D
ATOM	5072	CA	ASP	D	195	80.238	101.773	-2.454	1.00	70.32	D
ATOM	5073	CB	ASP	D	195	79.792	102.786	-1.389	1.00	75.87	D
ATOM	5074	CG	ASP	D	195	78.298	102.756	-1.132	1.00	75.87	D
ATOM	5075	OD1	ASP	D	195	77.534	102.483	-2.083	1.00	75.87	D
ATOM	5076	OD2	ASP	Ď	195	77.885	103.025	0.017	1.00	75.87	Ď
ATOM	5077	C	ASP	Ď.	195	81.706	102.043	-2.782			
ATOM									1.00	70.32	Ď
	5078	0	ASP	D	195	82.010	102.908	-3.601	1.00	70.32	D
ATOM	5079	Ν	LYS	D	196	82.613	101.310	-2.145	1.00	63.50	D
ATOM	5080	CA	LYS	D	196	84.036	101.522	-2.366	1.00	63.50	D
ATOM	5081	CB	LYS	D	196	84.800	101.273	-1.070	1.00	64.38	D
ATOM	5082	CG	LYS	D	196	84.383	102.194	0.053	1.00	64.38	D
ATOM	5083	CD	LYS	Ď	196	85.336	102.107	1.237	1.00	64.38	Ď
ATOM	5084	CE	LYS	Ď	196	84.895	103.043	2.354	1.00		
ATOM	5085	NZ								64.38	D
			LYS	D	196	84.611	104.410	1.811	1.00	64.38	D
ATOM	5086	C	LYS	D	196	84.669	100.715	-3.490	1.00	63.50	D
ATOM	5087	0	LYS	D	196	85.830	100.931	-3.830	1.00	63.50	D
ATOM	5088	N	VAL	D	197	83.920	99.785	-4.063	1.00	54.17	D
ATOM	5089	CA	VAL	D	197	84.439	98.966	-5.153	1.00	54.17	D
ATOM	5090	CB	VAL	D	197	85.082	97.645	-4.635	1.00	42.93	Ď
ATOM	5091	CG1	VAL	Ď	197	86.391	97.944	-3.915	1.00		
ATOM	5092									42.93	D
		CG2	VAL	D	197	84.116	96.916	-3.693	1.00	42.93	D
ATOM	5093	С	VAL	D	197	83.301	98.617	<b>-</b> 6.100	1.00	54.17	D
MOTA	5094	0	VAL	D	197	83.026	97.442	-6.339	1.00	54.17	D
ATOM	5095	N	PRO	D	198	82.635	99.641	-6.666	1.00	72.12	D
ATOM	5096	CD	PRO	D	198	82.941	101.067	-6.463	1.00	59.25	D
ATOM	5097	CA	PRO	Ď	198	81.510	99.491	-7.596	1.00	72.12	Ď
ATOM	5098	CB	PRO	Ď	198	81.219					
ATOM	5099						100.927	-8.017	1.00	59.25	D
		CG	PRO	D	198	81.631	101.716	-6.824	1.00	59.25	D
ATOM	5100	C	PRO	D	198	81.771	98.590	-8.798	1.00	72.12	D
MOTA	5101	0	PRO	D	198	80.848	97.967	-9.319	1.00	72.12	D
ATOM	5102	N	GLU	D	199	83.023	98.523	-9.237	1.00	98.89	D
ATOM	5103	CA	GLU	D	199	83.371	97.694	-10.384	1.00	98.89	D
ATOM	5104	CB	GLU	D	199	84.871	97.780	-10.680	1.00	93.86	Ď
ATOM	5105	CG	GLU	Ď	199	85.527	99.095		1.00		
ATOM	J 105	CG.	GLU	U	133	00.021	33.033	-10.299	1.00	93.86	D

WO 02/24722 PCT/IL01/00871

ATOM	5106	CD	GLU	D	199	85.787	99.206	-8.804	1.00	93.86	D
ATOM	5107	OE1	GLU	D	199	86.493	98.331	-8.257	1.00	93.86	Ď
ATOM	5108	OE2	GLU	D	199	85.292	100.167	-8.178	1.00	93.86	D
ATOM	5109	С	GLU	D	199	83.003	96.237	-10.121	1.00	98.89	D
ATOM	5110	0	GLU	D	199	82.685	95.488	-11.048	1.00	98.89	D
ATOM	5111	Ñ	LEU	D	200	83.043	95.840	-8.852	1.00	77.26	Ď
ATOM	5112	CA	LEU	D	200	82.737	94.468	-8.470	1.00	77.26	D
ATOM	5113	CB	LEU	D	200	83.522	94.099	-7.211	1.00	63.45	D
ATOM	5114	CG	LEU	D	200	85.029	94.384	-7.247	1.00	63.45	D
ATOM	5115	CD1	LEU	D	200	85.669	93.865	-5.969	1.00	63.45	D
ATOM	5116	CD2	LEU	D	200	85.669	93.721	-8.460	1.00	63.45	Ď
ATOM	5117	C	LEU	D	200	81.249	94.207	-8.246	1.00		
										77.26	D
ATOM	5118	0	LEU	D	200	80.810	93.061	-8.260	1.00	77.26	D
ATOM	5119	N	TYR	D	201	80.471	95.264	-8.044	1.00	79.23	D
ATOM	5120	CA	TYR	D	201	79.041	95.102	-7.815	1.00	79.23	D
ATOM	5121	CB	TYR	D	201	78.626	95.788	-6.505	1.00	53.35	D
ATOM	5122	CG	TYR	D	201	79.158	95.096	-5.265	1.00	53.35	Ď
ATOM	5123	CD1	TYR	Ď	201	80.496					
							95.214	-4.900	1.00	53.35	D
ATOM	5124	CE1	TYR	D	201	81.009	94.521	-3.815	1.00	53.35	D
ATOM	5125	CD2	TYR	D	201	78.340	94.264	<del>-</del> 4.500	1.00	53.35	D
ATOM	5126	CE2	TYR	D	201	78.847	93.564	-3.411	1.00	53.35	D
ATOM	5127	CZ	TYR	D	201	80.183	93.697	-3.077	1.00	53.35	D
ATOM	5128	ОН	TYR	D	201	80.704	93.008	-2.009	1.00	53.35	Ď
ATOM	5129	C	TYR	Ď	201	78.183	95.620				
ATOM	5130							-8.964	1.00	79.23	D
		0	TYR	D	201	77.087	96.141	-8.746	1.00	79.23	D
ATOM	5131	N	LYS	D	202	78.677	95.468	-10.190	1.00	99.88	D
ATOM	5132	CA	LYS	D	202	77.931	95.921	-11.359	1.00	99.88	D
ATOM	5133	CB	LYS	D	202	78.812	95.869	-12.609	1.00	100.00	D
ATOM .	5134	ÇG	LYS	D	202	80.025	96.788	-12.550	1.00	100.00	D
ATOM	5135	CD	LYS	Ď	202	80.778	96.818	-13.878	1.00	100.00	Ď
ATOM	5136	CE	LYS	Ď	202						
						82.027	97.691	-13.791	1.00	100.00	D
ATOM	5137	NZ	LYS	D	202	81.715	99.091	-13.377	1.00	100.00	D
ATOM	5138	C	LYS	D	202	76.683	95.067	-11.567	1.00	99.88	D
ATOM	5139	0	LYS	D	202	75.630	95.581	-11.949	1.00	99.88	D
ATOM	5140	N	ASP	D	203	76.803	93.766	-11.307	1.00	100.00	D
ATOM	5141	CA	ASP	D	203	75.683	92.837	-11.461	1.00	100.00	D
ATOM	5142	CB	ASP	D	203	76.079	91.426	-11.006	1.00	100.00	Ď
ATOM	5143	CG.	ASP	Ď	203						
						77.131	90.790	-11.899	1.00	100.00	D
ATOM	5144	OD1	ASP	D	203	77.436	89.593	-11.693	1.00	100.00	D
ATOM	5145	OD2	ASP	D	203	77.650	91.483	-12.802	1.00	100.00	D
ATOM	5146	С	ASP	D	203	74.457	93.281	-10.667	1.00	100.00	D
ATOM	5147	0 .	ASP	D	203	74.540	94.312	-9.964	1.00	100.00	D
ATOM	5148	OXT	ASP	D	203	73.427	92.581	-10.755	1.00	100.00	Ď
ATOM	5149	C1	NAG	Ā	651	63.850	94.832	26.593	1.00	68.55	
ATOM	5150	C2	NAG	Â	651						À
						63.632	94.709	28.104	1.00	68.55	Α
ATOM	5151	N2	NAG	A	651	63.712	96.022	28.706	1.00	68.55	Α
ATOM	5152	C7	NAG	Α	651	62.733	96.458	29.489	1.00	68.55	Α
ATOM	5153	07	NAG	Α	651	62.767	96.333	30.707	1.00	68.55	Α
ATOM	5154	C8	NAG	Α	651	61.541	97.145	28.833	1.00	68.55	Α
ATOM	5155	C3	NAG	Α	651	64.668	93.777	28.731	1.00	68.55	Ä
ATOM	5156	03	NAG	A	651	64.408	93.631	30.120	1.00		
ATOM	5157	C4	NAG		651					68.55	A
				A		64.589	92.423	28.037	1.00	68.55	A
ATOM	5158	04	NAG	A	651	65.540	91.503	28.618	1.00	68.55	Α
ATOM	5159	C5	NAG	A	651	64.884	92.637	26.552	1.00	68.55	Α
ATOM	5160	O5	NAG	Α	651	63.898	93.531	25.975	1.00	68.55	Α

#### WO 02/24722

ATOM	5161	C6	NAG	Α	651	64.834	91.342	25.754	1.00	68.55	Α
ATOM	5162	06	NAG	Α	651	63.504	90.789	25.810	1.00	68.55	A
ATOM	5163	C1	NAG	Α	652	65.055	90.264	29.021	1.00	91.39	Α
ATOM	5164	C2	NAG	Α	652	66.236	89.366	29.427	1.00	91.39	Α
ATOM	5165	N2	NAG	Α	652	67.021	89.025	28.258	1.00	91.39	Α
ATOM	5166	C7	NAG	Α	652	67.846	89.914	27.717	1.00	91.39	Α
ATOM	5167	07	NAG	Α	652	67.681	90.373	26.589	1.00	91.39	Α
ATOM	5168	C8	NAG	Α	652	69.048	90.346	28.545	1.00	91.39	Α
ATOM	5169	C3	NAG	Α	652	65.763	88.069	30.091	1.00	91.39	Α
ATOM	5170	О3	NAG	Α	652	66.883	87.363	30.607	1.00	91.39	Α
ATOM	5171	C4	NAG	Α	652	64.773	88.370	31.218	1.00	91.39	Α
ATOM	5172	04	NAG	Α	652	64.258	87.153	31.745	1.00	91.39	Α
ATOM	5173	C5	NAG	Α	652	63.635	89.227	30.656	1.00	91.39	Α
ATOM	5174	O5	NAG	A	652	64.168	90.468	30.138	1.00	91.39	Α
ATOM	5175	C6	NAG	A	652	62.563	89.576	31.681	1.00	91.39	Α
ATOM	5176	O6	NAG	Ā	652	63.108	90.271	32.795	1.00	91.39	Α
ATOM	5177	C1	NAG	В	651	38.808	84.496	68.218	1.00	100.00	В
MOTA	5178	C2	NAG	В	651	38.502	84.541	66.698	1.00	100.00	В
ATOM	5179	N2	NAG	В	651	37.072	84.723	66.499	1.00	100.00	В
ATOM	5180	C7	NAG	В	651	36.568	84.920	65.283	1.00	100.00	В
MOTA	5181	07	NAG	В	651	36.554	86.022	64.734	1.00	100.00	В
ATOM ATOM	5182	C8	NAG	В	651	35.979	83.713	64.570	1.00	100.00	В
	5183	C3	NAG	В	651	38.962	83.241	66.008	1.00	100.00	В
ATOM	5184	O3	NAG	В	651	38.856	83.380	64.598	1.00	100.00	В
MOTA	5185	C4	NAG	В	651	40.410	82.911	66.382	1.00	100.00	В
ATOM ATOM	5186 5187	O4	NAG	В	651	40.783	81.657	65.828	1.00	100.00	В
ATOM	5188	C5 O5	NAG NAG	В	651 654	40.537 40.186	82.866	67.906	1.00	100.00	В
ATOM	5189	C6	NAG	B B	651 651		84.151	68.459	1.00	100.00	В
ATOM	5190	06	NAG	В	651 651	41.941 42.198	82.534 81.140	68.377 68.280	1.00	100.00	В
ATOM	5191	C1	NAG -	C	651	63.417	128.288	49.924	1.00 1.00	100.00 68.42	В
ATOM	5192	C2	NAG	č	651	64.708	129.119	49.891	1.00	68.42	CC
ATOM	5193	N2	NAG	č	651	65.331	129.025	48.584	1.00	68.42	C
ATOM	5194	C7	NAG	č	651	65.531	130.125	47.864	1.00	68.42	Č
ATOM	5195	07	NAG	č	651	64.832	130.432	46.896	1.00	68.42	Ç
ATOM	5196	C8	NAG	č	651	66.688	131.026	48.280	1.00	68.42	Č
ATOM	5197	C3	NAG	č	651	65.698	128.660	50.957	1.00	68.42	Č
ATÓM	5198	О3	NAG	Č	651	66.807	129.548	50.985	1.00	68.42	č
ATOM	5199	C4	NAG	C	651	65.026	128.643	52.324	1.00	68.42	č
ATOM	5200	04	NAG	С	651	65.942	128.124	53.313	1.00	68.42	Č
ATOM	5201	C5	NAG	С	651	63.754	127.784	52.275	1.00	68.42	Č
ATOM	5202	<b>O</b> 5	NAG	С	651	62.859	128.275	51.250	1.00	68.42	Č
ATOM	5203	C6	NAG	С	651	62.989	127.882	53.582	1.00	68.42	Č
ATOM	5204	O6	NAG	С	651	62,608	129.258	53.793	1.00	68.42	C
MOTA	5205	C1	NAG	С	652	66.171	128.931	54.421	1.00	100.00	C
ATOM	5206	C2	NAG	С	652	66.861	128.115	55.522	1.00	100.00	C
ATOM	5207	N2	NAG	C	652	66.001	127.025	55.952	1.00	100.00	С
ATOM	5208	C7	NAG	С	652	64.979	127.252	56.776	1.00	100.00	С
ATOM	5209	07	NAG	С	652	63.857	127.557	56.375	1.00	100.00	С
ATOM	5210	C8	NAG	С	652	65.241	127.124	58.273	1.00	100.00	С
ATOM	5211	C3	NAG	С	652	67.208	129.029	56.708	1.00	100.00	С
ATOM	5212	O3	NAG	C	652	67.940	128.302	57.686	1.00	100.00	С
ATOM	5213	C4	NAG	C	652	68.033	130.221	56.226	1.00	100.00	С
ATOM	5214	04	NAG	C	652	68.262	.131.117	57.305	1.00	100.00	С
ATOM	5215	C5	NAG	С	652	67.294	130.946	55.098	1.00	100.00	С

ATOM	5216	<b>O</b> 5	NAG	С	652	67.011	130.026	54.016	1.00	100.00	С
ATOM	5217	C6	NAG	č	652	68.116	132.089	54.523	1.00	100.00	č
ATOM	5218	06	NAG	Č					1.00	100.00	č
					652	67.664	132.452	53,228			
ATOM	5219	C1	NAG	D	651	103.058	89.882	-9.969	1.00	74.98	D
ATOM	5220	C2	NAG	D	651	104.475	90.371	-10.345	1.00	74.98	D
ATOM	5221	N2	NAG	D	651	105.467	89.307	-10.332	1.00	74.98	D
ATOM	5222	C7	NAG	D	651	105.744	88.620	-9.224	1.00	74.98	D
ATOM	5223	07	NAG	D	651	105.839	89.134	-8.096	1.00	74.98	D
ATOM	5224	C8	NAG	D	651	105.958	87.122	-9.400	1.00	74.98	D
ATOM	5225	СЗ	NAG	D	651	104.892	91.520	-9.434	1.00	74.98	D
ATOM	5226	О3	NAG	D	651	106.198	91.964	-9.777	1.00	74.98	Ď
ATOM	5227	C4	NAG	D	651	103.883	92.641	-9.633	1.00	74.98	Ď
ATOM	5228	04	NAG	Ď	651	104.247	93.792	-8.844	1.00	74.98	Ď
ATOM	5229	C5	NAG	D	651	104.247	92.135	-9.255	1.00		
ATOM	5230	O5	NAG							74.98	D
				D	651	102.119	90.979	-10.064	1.00	74.98	D
MOTA	5231	C6	NAG	D	651	101.402	93.189	-9.485	1.00	74.98	D
ATOM	5232	06	NAG	D	651	101.461	93.661	-10.848	1.00	74.98	D
ATOM	5233	C1	NAG	D	652	104.420	94.982	-9.546	1.00	98.85	D
ATOM	5234	C2	NAG	D	652	104.427	96.163	-8.568	1.00	98.85	D
ATOM	5235	N2	NAG	D	652	103.145	96.270	-7.902	1.00	98.85	D
ATOM	5236	C7	NAG	D	652	102.875	95.490	-6.862	1.00	98.85	D
ATOM	5237	07	NAG	D	652	103,723	95.171	-6.025	1.00	98.85	D
MOTA	5238	C8	NAG	D	652	101.452	94.977	-6.736	1.00	98.85	D
ATOM	5239	СЗ	NAG	D	652	104.737	97.466	-9.310	1.00	98.85	Ď
ATOM	5240	О3	NAG	D	652	104.833	98.534	-8.381	1.00	98.85	Ď
ATOM	5241	C4	NAG	Ď	652	106.052	97.324	-10.071	1.00	98.85	Ď
ATOM	5242	04	NAG	Ď	652	106.312	98.509	-10.814	1.00	98.85	Ď
ATOM	5243	C5	NAG	Ď	652	105.953	96.118	-11.013	1.00	98.85	Ď
ATOM	5244	05	NAG	Ď	652	105.674	94.916	-10.251	1.00		
ATOM	5245	C6	NAG	Ď	652	107.225	95.871	-10.251		98.85	D
ATOM	5246	06	NAG	Ď	652	107.225			1.00	98.85	D .
ATOM	5247	C1	FUC				96.125	-11.032	1.00	98.85	Ď.
ATOM	5248	C2	FUC	A	653	63.367	89.618	25.052	1.00	70.32	A
ATOM	5249	02		Ā	653	62.115	88.863	25.509	1.00	70.32	Α
			FUC	Α	653	62.157	88.688	26.918	1.00	70.32	A
ATOM	5250	C3	FUC	A	653	60.856	89.646	25.132	1.00	70.32	Α
ATOM	5251	O3	FUC	Α	653	59.707	88.879	25.450	1.00	70.32	Α
ATOM	5252	C4	FUC	Α	653	60.850	89.986	23.639	1.00	70.32	Α
ATOM	5253	04	FUC	Α	653	60,667	88.804	22.877	1.00	70.32	Α
ATOM	5254	C5	FUC	Α	653	62.166	90.672	23.234	1.00	70.32	Α
ATOM	5255	<b>O</b> 5	FUC	Α	653	63.300	89.875	23.649	1.00	70.32	Α
ATOM	5256	C6	FUC	Α	653	62.282	90.868	21.734	1.00	70.32	Α
ATOM	5257	C1	FUC	C	653	62.005	129.498	55.033	1.00	71.31	С
ATOM	5258	C2	FUC	C	653	62.082	131.004	55.367	1.00	71.31	C
ATOM	5259	02	FUC	C	653	63.420	131.466	55.253	1.00	71.31	Č
MOTA	5260	C3	FUC	C.	653	61.176	131.788	54.416	1.00	71.31	Č
ATOM	5261	О3	FUC	C.	653	61.234	133.176	54.705	1.00	71.31	č
ATOM	5262	C4	FUC	Č	653	59.751	131.272	54.572	1.00	71.31	č
ATOM	5263	04	FUC	č	653	59.330	131.451	55.920	1.00	71.31	č
ATOM	5264	C5	FUC	Č	653	59.734	129.781	54.214	1.00	71.31	Č
ATOM	5265	05	FUC	č	653	60.646	129.049	55.072			
ATOM	5266	C6	FUC	C	653	58.364			1.00	71.31	C
ATOM	5267	C1	FUC		653		129.152	54.372	1.00	71.31	Č.
ATOM	5267 5268			D		100.642	94.777	-11.078	1.00	71.23	D.
		C2	FUC	D	653 653	101.026	95.446	-12.409	1.00	71.23	D
MOTA	5269	02	FUC	D	653	102.420	95.729	-12.432	1.00	71.23	D
MOTA	5270	C3	FUC	D	653	100.660	94.525	-13.578	1.00	71.23	D

FIGURE 2 Contilled

ATOM	5271	О3	· FUC	D	653	100.963	95.158	-14.814	1.00	71.23	D
ATOM	5272	C4	FUC	Ď	653	99.170	94.171	-13.518	1.00	71.23	Ď
ATOM	5273	04	FUC	Ď	653	98.381	95.335	-13.727	1.00	71.23	Ď
ATOM	5274	C5	FUC	Ď							
					653	98.836	93.557	-12.154	1.00	71.23	D
ATOM	5275	O5	FUC	D	653	99.251	94.443	-11.083	1.00	71.23	D
ATOM	5276	C6	FUC	D	653	97.349	93.319	-11.988	1.00	71.23	D
ATOM	5277	S	SO4	S	290	87.269	114.471	20.201	1.00	56.53	S
ATOM	5278	01	SO4	S	290	87.763	114.116	18.855	1.00	56.53	S
ATOM	5279	02	SO4	S	290	85.981	113.803	20.472	1.00	56.53	S
ATOM	5280	О3	504	S	290	87.066	115.930	20.260	1.00	56.53	S
ATOM	5281	04	SO4	S	290	88.255	114.036	21.209	1.00	56.53	Š
ATOM	5282	s '	SO4	š	291	65.177	99.186	80.678	1.00	100.00	š
ATOM	5283	01	SO4	S	291	63.867	99.855	80.809	1.00	100.00	S
ATOM	5284			0							
		02	SO4	S	291	64.972	97.810	80.181	1.00	100.00	S
ATOM	5285	03	SO4	S	291	65.834	99.154	81.999	1.00	100.00	S
ATOM	5286	04	SO4	S	291	66.036	99.927	79.733	1.00	100.00	S
ATOM	5287	S	SO4	S	292	64.193	99.447	37.657	1.00	60,46	S
ATOM	5288	01	SO4	S	292	65.362	98.575	37.866	1.00	60.46	S
ATOM	5289	O2	SO4	S	292	63.121	99.042	38.580	1.00	60.46	S
MOTA	5290	О3	SO4	S	292	63.707	99.332	36.270	1.00	60.46	S
ATOM	5291	04	SO4	Š	292	64.581	100.841	37.921	1.00	60.46	Š
ATOM	5292	S	SO4	š	293	98.600	73.817	16.564	1.00	49.60	S
ATOM	5293	01	SO4	S	293	99,493	74.314	17.627	1.00		S
ATOM	5294	02	SO4	0						49.60	
				S	293	97.218	74.226	16.862	1.00	49.60	S
ATOM	5295	O3	SO4	S	293	98.678	72.341	16.514	1.00	49.60	S
ATOM	5296	04	SO4	S	293	99.000	74.391	15.270	1.00	49.60	S
ATOM	5297	S	SO4	S	294	80.532	120.977	15.256	1.00	99.04	S
ATOM	5298	01	SO4	S	294	81.699	121.011	16.163	1.00	99.04	S
ATOM	5299	02	SO4	S	294	80.210	122.351	14.830	1.00	99.04	S
ATOM	5300	O3	SO4	S	294	79.358	120.395	15.944	1.00	99.04	S
ATOM	5301	04	SO4	S	294	80.877	120.171	14.069	1.00	99.04	Š
ATOM	5302	S	SO4	Š	295	58.950	102.740	88.312	1.00	100.00	Š
ATOM	5303	01	SO4	Š	295	59.842	102.968	87.152	1.00	100.00	Š.
ATOM	5304	02	SO4	S	295	59.774	102.431	89.502	1.00	_	S
ATOM	5305	03	SO4		295 295					100.00	S
				S		58.041	101.603	88.032	1.00	100.00	S
ATOM	5306	04	SO4	S	295	58.149	103.959	88.562	1.00	100.00	S
ATOM	5307	S	SO4	S	296	57.564	103.837	30.030	1.00	100.00	S
ATOM	5308	01	SO4	S	296	58.893	103.618	29.431	1.00	100.00	S
MOTA	5309	<b>O</b> 2	SO4	S	296	56.598	104.166	28.960	1.00	100.00	S
ATOM	5310	O3	SO4	S	296	57.633	104.962	30.989	1.00	100.00	·S
ATOM	5311	04	<b>SO4</b>	S	296	57.134	102.604	30.726	1.00	100.00	S
ATOM	5312	S	SO4	S	297	96.037	65.451	9.537	1.00	90.21	S
<b>ATOM</b>	5313	01	SO4	S	297	97.355	64.786	9.509	1.00	90.21	Š
ATOM	5314	02	SO4	S	297	96.063	66.627	8.645	1.00	90.21	Š
ATOM	5315	03	SO4	Š	297	95.715	65.864	10.919	1.00	90.21	S
ATOM	5316	04	SO4	S	297	95.007	64.512	9.057			
	5317								1.00	90.21	S
MOTA		OH2	WAT	W	1	98.243	72.793	8.778	1.00	40.14	W
ATOM	5318	OH2	WAT	W	2	100.723	99.069	1.343	1.00	43.74	W
ATOM	5319	OH2	WAT	W	3	82.241	105.217	19.713	1.00	28.74	W
ATOM	5320	OH2	WAT	W	4	75.884	89.321	17.720	1.00	28.05	W
MOTA	5321	OH2	WAT	W	5	93.183	80.024	16.428	1.00	24.14	W
MOTA	5322	OH2	WAT	W	6	77.336	105.675	24.395	1.00	32.73	W
MOTA	5323	OH2	WAT	W	7	69.995	85.178	19.215	1.00	45.10	W
MOTA	5324	OH2	WAT	W	8	72.713	111,831	18.813	1.00	28.44	W
ATOM	5325	OH2	WAT	W	9	70.462	97.602	28.514	1.00	38.75	W
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# WO 02/24722

# FIGURE 2 Continued

#### PCT/IL01/00871

ATOM	5326	OH2	WAT	W	10	81.728	86.681	<del>-4</del> .948	1.00	46.77	W
ATOM	5327	OH2	WAT	W	11	46.060	107.671	59.577	1.00	64.17	W
ATOM	5328	OH2	WAT	w	12	84.139	88.047	23.458	1.00	64.93	w
ATOM	5329	OH2	WAT	w	13	60.994	118.607	32.498	1.00	45.07	w
ATOM	5330	OH2	WAT	w	14	65.151	112.020	43.183	1.00	38.22	w
ATOM	5331	OH2	WAT	W	15	101.436	76.882	21.919	1.00	43.89	W
ATOM	5332	OH2									
			WAT	W	16	70.692	82.671	2.951	1.00	39.40	W
ATOM	5333	OH2	WAT	W	17	77.880	90.837	6.039	1.00	45.30	W
ATOM	5334	OH2	WAT	W	18	53.388	120.527	54.360	1.00	32.92	W
ATOM	5335	OH2	WAT	W	19	88.455	87.041	22.408	1.00	48.72	W
ATOM	5336	OH2	WAT	W	20	62.755	109.918	29.364	1.00	45.86	W
ATOM	5337	OH2	WAT	W	21	101.357	76.280	16.232	1.00	31.46	W
ATOM	5338	OH2	WAT	W	22	80.811	81.779	-1.444	1.00	45.90	W
ATOM	5339	OH2	WAT	W	23	54.512	121.498	52.129	1.00	43.52	W
ATOM	5340	OH2	WAT	W	24	95.558	95.007	-15.047	1.00	62.31	W
ATOM	5341	OH2	WAT	W	25	70.709	120.756	37.731	1.00	47.56	W
ATOM	5342	OH2	WAT	W	26	58.731	102.298	42.435	1.00		W
ATOM	5343	OH2	WAT	W	27	102.361	62.548	12.953	1.00		w
ATOM	5344	OH2	WAT	w	28	111.776	66.358	13.734	1.00	35.34	w
ATOM	5345	OH2	WAT	w	29	89.104	92.829	16.621	1.00		w
ATOM	5346	OH2	WAT	w	30	43.225	109.666	46.636	1.00		W
ATOM	5347	OH2	WAT	w	31	67.323	94.804	16.042	1.00		w
ATOM	5348	OH2	WAT	W	32	59.324	121.006	34.693			
ATOM	5349	OH2	WAT	W	33				1.00	43.79	W
ATOM	5350	OH2				82.453	77.000	9.480	1.00		W
			WAT	W	34	95.982	100.629	12.897	1.00		W
MOTA	5351	OH2	WAT	W	35	54.160	113.078	74.080	1.00		W
ATOM	5352	OH2	WAT	W	36	68.861	92.681	14.691	1.00		W
ATOM	5353	OH2	WAT	W	37	96,636	81.840	10.110	1.00		W
ATOM	5354	OH2	WAT	W	38	108,927	91.327	8,447	1.00		W
ATOM	5355	OH2	WAT	W	39	80.800	92.167	3,134	1.00		W
ATOM	5356	OH2	WAT	W	40	91.129	102.744	28.200	1.00		W
ATOM	5357	OH2	WAT	W	41	79.061	91.827	-0.696	1.00		W
ATOM	5358	OH2	WAT	W	42	55.591	110.935	65.257	1.00		W
ATOM	5359	OH2	WAT	W	43	88.416	107.977	9.153	1.00	40.78	W
ATOM	5360	OH2	WAT	W	44	49.615	85.837	59.269	1.00	58.95	W
ATOM	5361	OH2	WAT	W	45	88.447	107.397	16.191	1.00	33.70	W
ATOM	5362	OH2	WAT	W	46	62.234	106.156	45.413	1.00	36.64	W
ATOM	5363	OH2	WAT	W	47	76.054	93.988	16.647	1.00	28.00	W
ATOM	5364	OH2	WAT	W	48	61.293	106.411	36.257	1.00	38.13	W
ATOM	5365	OH2	WAT	W	49	84.935	101.229	8.292	1.00	37.11	W
ATOM	5366	OH2	WAT	W	50	73.442	104.943	26.714	1.00		W
ATOM	5367	OH2	WAT	W	51	62.168	109.685	18.951	1.00		W
ATOM	5368	OH2	WAT	W	52	86.134	99.036	9.586	1.00		W
ATOM	5369	OH2	WAT	W	53	53.297	114.656	43.291	1.00		w
ATOM	5370	OH2	WAT	W	54	91.965	91.169	2.028	1.00		w
ATOM	5371	OH2	WAT	W	55	68.554	106.631	38.047	1.00		w
ATOM	5372	OH2	WAT	w	56	42.275	117.236	51.563	1.00		w
ATOM	5373	OH2	WAT	W	57	78.710	113.956	1.464	1.00		w
ATOM	5374	OH2	WAT	w	58	67.208	114.504	23.283	1.00		w
ATOM	5375	OH2	WAT	w	59	82.994	99.681	31.729	1.00	-	w
ATOM	5376	OH2	WAT	w	60	65.200	109.879	24.059	1.00		w
ATOM	5377	OH2	WAT	W	61	97.040	73.278	24.059	1.00		
ATOM	5378	OH2	WAT	W		93.225	99.035	-5.528			W
ATOM	5379	OH2	WAT	W	62 63	93.225 71.875	100.135	-5.526 3.573	1.00		W
ATOM	5380	OH2	WAT	W	64	62.928	100.135		1.00		W
/ TI OIVI	5500	OHZ	44//1	v v	04			22.446	1.00	52.64	W
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ATOM	5381	OH2	WAT	W	65	44.217	112.617	48.777	1.00	48.56 W
ATOM	5382	OH2	WAT	W	66	93.228	67.203	7.652	1.00	41.59 W
ATOM	5383	OH2	WAT	W	67	77.650	103.578	32.499	1.00	40.82 W
MOTA	5384	OH2	WAT	W	68	91.335	94.124	22.779	1.00	59.93 W
ATOM	5385	OH2	WAT	W	69	48.083	109.798	59.363	1.00	57.31 W
ATOM	5386	OH2	WAT	W	70	58.427	112.971	36.462	1.00	34.49 W
ATOM	5387	OH2	WAT	w	71	103.742	87.373	18.534		
ATOM	5388	OH2	WAT	w	72	83.955	83.619	7.649	1.00	
ATOM	5389	OH2	WAT	w	73	105.879			1.00	36.86 W
ATOM	5390	OH2	WAT	w			85.929	18.515	1.00	58.34 W
ATOM	5391	OH2	WAT	W	74 75	73.385	114.693	44.497	1.00	50.73 W
ATOM	5392	OH2			75 70	90.898	81.250	21.569	1.00	53.51 W
ATOM	5393	OH2	WAT	W	76	93.172	77.536	12.194	1.00	34.23 W
			WAT	W	77	71.336	105.163	13.459	1.00	39.65 W
MOTA	5394	OH2	WAT	W	78	94.872	75.387	12.718	1.00	27.22 W
ATOM	5395	OH2	WAT	W	79	79.491	113.953	19.501	1.00	41.09 W
ATOM	5396	OH2	WAT	W	80	73.163	112.199	16.131	1.00	31.19 W
ATOM	5397	OH2	WAT	W	81	81.906	111.926	26.496	1.00	33.98 W
ATOM	5398	OH2	WAT	W	82	70.470	89.549	20.238	1.00	40.29 W
ATOM	5399	OH2	WAT	W	83	93.047	104.689	7.488	1.00	48.34 W
ATOM	5400	OH2	WAT	W	84	104.406	76.662	11.032	1.00	29.83 W
ATOM	5401	OH2	WAT	W	85	84.174	109.256	15.552	1.00	28.81 W
ATOM	5402	OH2	WAT	W	86	90.192	90.721	-5.640	1.00	54.35 W
ATOM	5403	OH2	WAT	W	87	85.476	86.441	12.601	1.00	30.66 W
ATOM	5404	OH2	WAT	W	88	67.390	95.645	3.293	1.00	44.86 W
ATOM	5405	OH2	WAT	W	89	102.338	75.732	13.813	1.00	41.56 W
ATOM	5406	OH2	WAT	W	90	92.271	95.700	0.716	1.00	36.78 W
ATOM	5407	OH2	WAT	w	91	82.997	77.296	6.765	1.00	38.94 W
ATOM	5408	OH2	WAT	w	92	67.517	83.159	2.651	1.00	
ATOM	5409	OH2	WAT	w	93	101.590	81.432	5.335		50.39 W
ATOM	5410	OH2	WAT	w	93 94	61.174			1.00	32.29 W
ATOM	5411	OH2	WAT	w			108.116	16.606	1.00	41.44 W
ATOM	5412	OH2			95	64.720	114.974	12.791	1.00	44.59 W
ATOM			WAT	W	96	78.195	117.163	28.367	1.00	40.57 W
ATOM	5413	OH2	WAT	W	97	57.717	114.079	55.035	1.00	36.92 W
	5414	OH2	WAT	W	98	67.044	100.744	39.547	1.00	51.71 W
ATOM	5415	OH2	WAT	W	99	92.153	88.819	-6.463	1.00	42.00 W
ATOM	5416	OH2	WAT	W	100	83.503	119.049	18.338	1.00	39.68 W
ATOM	5417	OH2	WAT	W	101	84.247	111.886	16.564	1.00	34.46 W
ATOM	5418	OH2	WAT	W	102	84.120	114.466	15.058	1.00	46.29 W
ATOM	5419	OH2	WAT	W	103	78.739	92.710	1.767	1.00	53.05 W
ATOM	5420	OH2	WAT	W	104	75.383	119.594	22.530	1.00	45.72 W
ATOM	5421	OH2	WAT	W	105	97.340	99.403	8.650	1.00	59.09 W
ATOM	5422	OH2	WAT	W	106	60.487	98.834	45.196	1.00	48.04 W
ATOM	5423	OH2	WAT	W	107	81.895	97.296	33.308	1.00	53.41 W
ATOM	5424	OH2	WAT	W	108	61.463	106.999	18.809	1.00	46.26 W
ATOM	5425	OH2	WAT	W	109	103.807	87.900	14.867	1.00	42.52 W
ATOM	5426	OH2	WAT	W	110	61.631	121.926	36.087	1.00	57.28 W
ATOM	5427	OH2	WAT	W	111	80.906	98.367	7.256	1.00	39.55 W
ATOM	5428	OH2	WAT	w	112	84.738	112.744	24.379	1.00	37.45 W
ATOM	5429	OH2	WAT	w	113	97.371	95.058	17.386	1.00	45.28 W
ATOM	5430	OH2	WAT	W	114	85.143	89.014	11.475		
ATOM	5431	OH2	WAT	W	115	91.391	78.713	-1.122	1.00	46.64 W
ATOM	5432	OH2	WAT	W	116	103.551			1.00	25.77 W
ATOM	5433	OH2					81.877	1.731	1.00	50.24 W
ATOM	5434	OH2	WAT	W	117	43.228	107.507	36.707	1.00	52.06 W
			WAT	W	118	93.991	67.254	13.175	1.00	55.01 W
ATOM	5435	OH2	WAT	W	119	47.508	104.474	44.657	1.00	42.36 W

WO 02/24722

ATOM	5436	OH2	WAT	W	120	93.716	103.969	19.726	1.00	48.72	W
ATOM	5437	OH2	WAT	Ŵ	121	96.426	74.427	-6.268	1.00	40.69	W
ATOM	5438	OH2	WAT	W	122	92.951	102.931	2.648	1.00	49.76	W
ATOM	5439	OH2	WAT	W	123	52.043	107.168	67.763	1.00	55.50	Ŵ
ATOM	5440	OH2	WAT	w	124	94.885	68.428	15.049	1.00	52.06	Ŵ
ATOM	5441	OH2	WAT	Ŵ	125	94.068	106.686	14.846	1.00	51.39	W
ATOM	5442	OH2	WAT	W	126	69.295	109,470	32.249	1.00	40.55	W
ATOM	5443	OH2	WAT	W	127	50.780	105.242	50.558	1.00	54.72	W
ATOM	5444	OH2	WAT	W	128	76.875	87.787	26.823	1.00	29.07	w
ATOM	5445	OH2	WAT	W	129	83.439	85.902	7.118	1.00	30.78	W
ATOM	5446	OH2	WAT	W	130	93.888	72.716	13.851	1.00	44.58	w
ATOM	5447	OH2	WAT	W	131	70.603	103.872	36.649	1.00	49.76	w
ATOM	5448	OH2	WAT	W	132	95.627	71.658	15.900	1.00	47.50	w
ATOM	5449	OH2	WAT	W	133	90.727	109.854	24.313	1.00	37.36	W
ATOM	5450	OH2	WAT	W	134	66.795	109,939	62.274	1.00	60.58	W
ATOM	5451	OH2	WAT	W	135	74.204	77.679	2.581	1.00	60.35	w
ATOM	5452	OH2	WAT	W	136	82.625	107.558	4.030	1.00	40.37	w
ATOM	5453	OH2	WAT	W	137	72.941	97,648	39.459	1.00	48.32	W
ATOM	5454	OH2	WAT	W	138	60.515	81.451	72.811	1.00	60.18	W
ATOM	5455	OH2	WAT	W	139	83.361	104.042	35.263	1.00	49.95	W
ATOM	5456	OH2	WAT	W	140	111.952	86.558	10.762	1.00	48.42	Ŵ
ATOM	5457	OH2	WAT	W	141	77.317	110.318	45.555	1.00	59.12	Ŵ

WO 02/24722

PCT/IL01/00871

# FIGURE 3

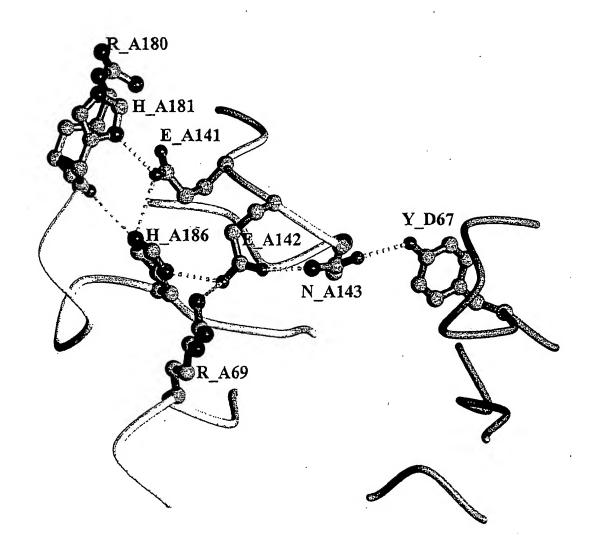
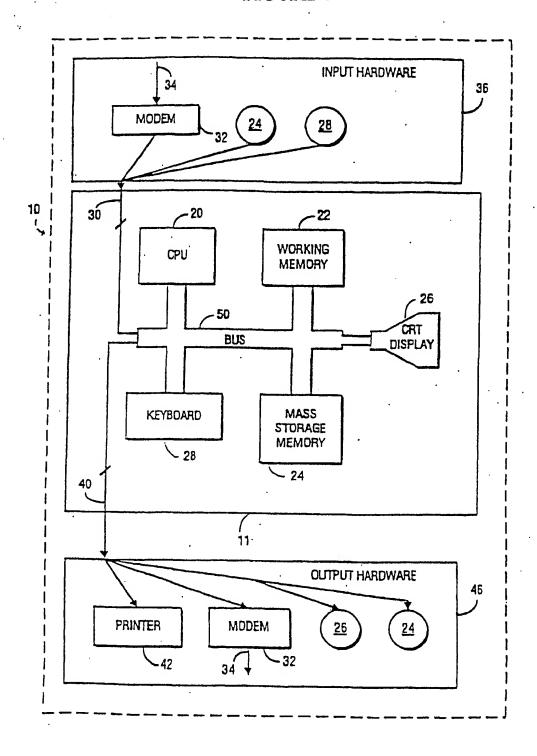
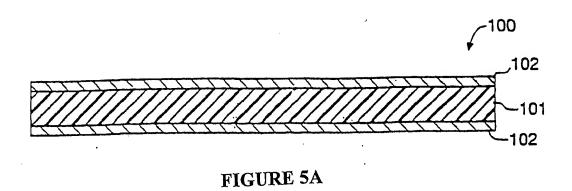


FIGURE 4



WO 02/24722

PCT/IL01/00871



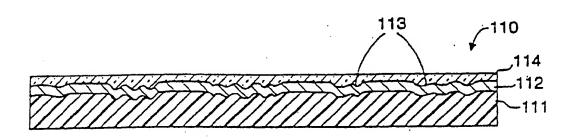


FIGURE 5B

100/100

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